

**A YEAR OF
QUALITY RESEARCH
TO IMPROVE
PEOPLE'S HEALTH**

**VHIR
ANNUAL
REPORT
2011**

www.vhir.org/annualreport2011



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JOSÉ JERÓNIMO NAVAS

General Manager of Vall d'Hebron University Hospital

JOAN X. COMELLA

VHIR's Director

These are the highlights of an interview that you can watch at: www.vhir.org/annualreport2011

RELATIONSHIP BETWEEN VHIR AND HUVH

José J. Navas: The mission of HUVH is to provide excellent health care and to do that you have to link the health care activities with medical education and research and innovation. HUVH is a public institution without juridical personality and VHIR has it, so this allows VHIR to manage human resources and procurement in a more efficient way. For that reason we created the research foundation in the past and I think that the relation and experience is good and we have to foster a new leverage of the foundation.

Joan Comella: We provide services for more than 700 persons that belong to the hospital. I expect that in the future this nice and good relationship will continue and be able to increase the activities.

J.J.N: We need to increase the structural budget and compromise all the health authorities and the management team of the hospital to increase the structural budget. But the present balance is quite good and competitive in relation with other institutions.

J.C: From a competitive point of view, Vall d'Hebron is one of the most competitive structures in getting funds from both public agencies and private companies.

J.J.N: Now we are the second in the country, but if we pay atten-

tion to the research developed by the hospital is first or equal as our main competitor. We have achieved a lot of success but we have to improve mechanisms in relation with capital risk or philanthropy to increase the budget.

IMPORTANCE OF RESEARCH IN THE DAY BY DAY AT VALL D'HEBRON

J.J.N: Vall d'Hebron is an academic institution, isn't a city or district hospital, but a national academic institution that if wants to be excellent in health care needs a strong program in medical education and research.

J.C: Our staff is leader in the clinical practice but at the same time they are leading the scientific field and many times at the international level. We shouldn't expect to be the best in Spain, we should expect to be among the best in the world. Our research is devoted to peoples' problems, this is very important and singular and doesn't happen in other institutions that are very good but don't have our additional value and responsibility.

J.J.N: HUVH has to serve our community, play a role of national reference, being able to compete in the European research arena and have detectors to be able to compete in the global health system. You need to be a strong academic center to develop all these roles. Vall d'Hebron is the reference center of Spain to connect translational research of Spain with Europe through the EATRIS project. We have to increase our presence in the global health system with particular programs like this or others and collaboration projects with USA, Canada or Asia. We are in the way to achieve that.

J.C: That's one of the main objectives in the next four years, to become more relevant in the international arena. Apart of the translational medicine, we have also put a lot of effort to make our teams, that are very good in a national level, to present in European consortia and, if we can, to be leaders of these consortia.

INNOVATION

J.C: We have made a lot of effort with the pharmaceutical companies in the clinical trials. Vall d'Hebron is leader at the national level on



J.J.N: "Excellence in the scientific productivity means a very efficient science system"



J.C: “We shouldn’t expect to be the best in Spain, we should expect to be among the best in the world”

new clinical trials and we are becoming more and more present at the early stages of clinical trials. But our relationship with other parts of the industry has less development, and particularly our position trying to protect and transfer our knowledge.

J.J.N: We have to move from a public statement to develop instruments to perform innovation. We need a strong organization, to have the talent, the most competitive professionals, a cutting edge technology and a cultural change. We have to change the culture, protect knowledge, make transactions with enterprises and capture new professionals that know how to manage the interface between knowledge generation and the market. There are a lot of things to do but we are ready.

PROFESSIONALS / TEAMS

J.C: We are in a good position but we should be able to keep that pace in terms of trying to attract the best at any level of the organization. The best medical students, the best doctors in the internship, but at the same time try to attract the best professionals that are already in the market. Of course we should promote our people too. We want to be the best with the best people and we should be able to provide the best tools for them. From the management point of view this is one of the most important things we should do.

J.J.N: We need a new kind of people, not only thinkers. We need a mix between thinkers and entrepreneur, people able to capture economical resources. Excellence in the scientific productivity means a very efficient science system.

HUVH AND RESEARCH IN THE FUTURE

J.J.N: Our dream is to have a highly competitive health care institution, excellent in medical education, in research and innovation, and to be a model to follow. If we are able to achieve that goal we have been successful, if not, we have been an average management.

J.C: I expect not to be part of the average, we should expect to be in a leader position.



Vall d'Hebron
Institut de Recerca
Edifici Mediterrània

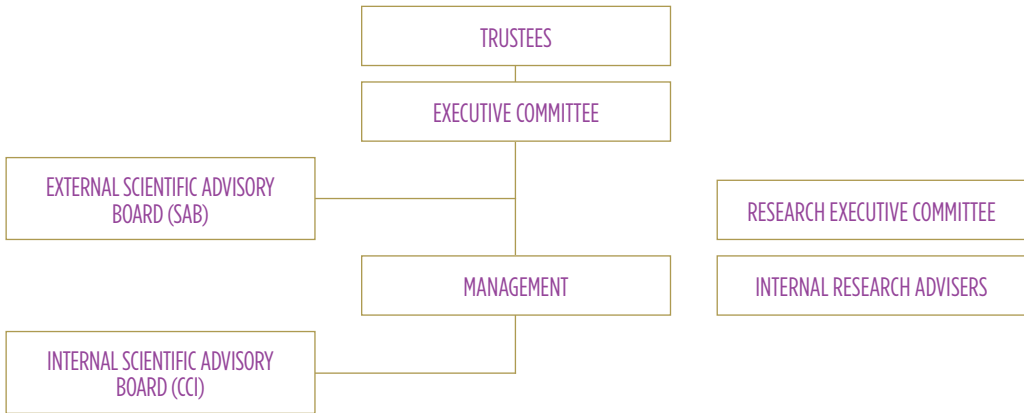
**ORGANIZATION
AND STAFF**

More information:
www.vhir.org/annualreport2011

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ORGANIZATIONAL CHART

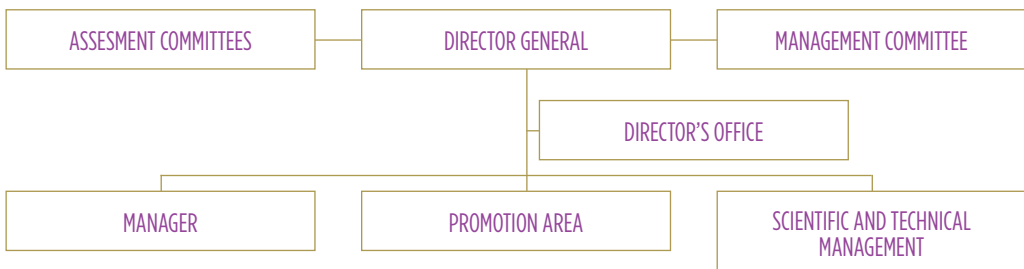
GOVERNING BODIES



RESEARCH



ADMINISTRATIVE STRUCTURE

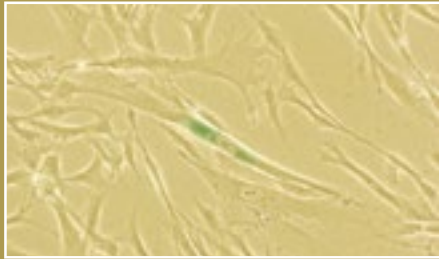


A microscopic image of brain tissue, showing various cellular structures and layers. A white rectangular box is overlaid on the right side of the image, containing text. The background is a mix of purple, blue, and white tones, representing different tissue components.

RESEARCH AREAS

More information:
www.vhir.org/annualreport2011

AREA 1 ONCOLOGY



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
178	1,088.315	6.114

Vall d'Hebron has actually a very strong program in translational research and this is especially important in the field of oncology. 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.

In 2011 we included more than 700 patients in clinical trials, a number that places us in the first position in Europe. We are focusing more and more in early drug clinical development. More than one third of the patients are actually included in Phase 1 clinical trials.

RESEARCH UNIT IN BIOMEDICINE AND TRANSLATIONAL AND PEDIATRICS ONCOLOGY

Jaume Reventós Puigjaner



Focused on the molecular and translational research of several cancers including those of the prostate, the endometrium, the ovary, the pancreas as well as the pediatric neuroblastoma and rhabdomyosarcoma. We aim to identify and characterize new molecules which might play relevant roles in the neoplastic cell transformation, and/or growth, progression or dissemination of those tumors. All of our projects are based on unresolved clinical needs. Using experimental models, we develop new research strategies that could lead to preclinical validation.

MAIN RESEARCH LINES

- Translational Urological Research
- Gynecological Oncology
- Cell Signalling and Cancer Progression
- Translational Research in Pediatric Cancer
- Stem Cells and Cancer

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
35	160.755	4.593

MOLECULAR PATHOLOGY

Santiago Ramon y Cajal Agüeras



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.
- Study of HER3 expression in human cancer.

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
28	129.389	4.621

EXPERIMENTAL HEMATOLOGY

Francesc Bosch Albareda



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.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
13	70.026	5.387

ONCOLOGY AND MOLECULAR PATHOLOGY

Matilde Leonart Pajarín



The identification of novel prognosis and diagnosis factors which unveil novel strategies to design anti-cancer therapies. We carry out massive genetic screens by using cDNA (sense and antisense) libraries to infect primary cells and target those cellular clones which have acquired immortalized properties.

In vitro, it is performed at mRNA and protein level in infected cells with the putative oncogene or tumor suppressor gene versus the control cells. Our final aim is to search the importance of the discovered genes in human tumors. Thereby we search the discovered genes/tumor suppressor in a broad range of human samples. It is expected to find unknown strategies to target novel therapeutic pathways important in tumorigenesis.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	21.985	5.496

ANIMAL MODEL AND CANCER

Juan Angel Recio Conde



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 its implications in cancer

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	9.628	4.814

GROWTH FACTORS AND CANCER



Joaquin Arribas López



Our group focuses on the mechanisms and factors that mediate the progression and metastasis of Breast Cancer, particularly on a type of Breast Cancer characterized by the excessive expression of a tyrosine kinase receptor named ErbB2. We also coordinate the Breast Cancer Program within the Spanish Network for Research in Cancer (RTICC) and possess the Consolidated Research Group category in Catalonia.

MAIN RESEARCH LINES

- Characterize the proteolytic remodeling of the cell surface during malignant transformation.
- Develop novel therapies against HER2-positive breast cancers.
- Establish and characterize models that reproduce the different types of breast cancer.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	37.253	9.313

PROTEOMICS



Francesc Canals Suris



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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	21.292	5.323

GENE EXPRESSION AND CANCER



Joan Seoane Suárez



Focused on the study of glioma, the most frequent of all brain tumors, and 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. Special interest in understanding the intra-tumoral heterogeneity including cancer stem cells and 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.
- Identify and study Cancer Stem Cells (CSCs).
- Develop specific treatments for each of the different cellular entities present within a tumor

EXPERIMENTAL THERAPEUTICS



José Manuel Baselga Torres



During 2011 our research focused on understanding the mechanisms of resistance to targeted therapy in breast cancer, with special emphasis on the blockade of the HER2/PI3K 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

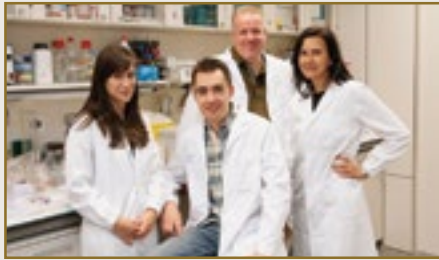
- Unveiling novel mechanisms of resistance against HER2- and PI3K-targeted therapies.
- Studying early molecular responses following PI3K inhibition to rationally design novel combination therapy in breast cancer.
- Developing predictive and pharmacodynamic biomarkers of PI3K-pathway inhibitors.
- Establishing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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
59	388.302	6.581

CANCER AND STEMS CELLS



Héctor García Palmer



Our group is 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.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	16.719	5.573

GASTROINTESTINAL TUMORS



Josep Taberero Caturla



In 2011, we carried out basic research in collaboration with VHIO's Stem Cells & Cancer Group as well as international research groups. We have provided the rationale for several research studies, collecting clinical samples for validation of experimental endpoints and the discussion and manuscripts for these studies. We are also collaborating with several international institutions on projects partially funded by the EC's 7th Framework Programme of Research & Development.

MAIN RESEARCH LINES

- Clinical research in late stage with more translational endpoints, focusing on the identification of prognostic/predictive biomarkers.
- Early clinical research with innovative targets.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
24	211.237	8.802

RADIATION ONCOLOGY



Jordi Giralt López de Sagredo



Integrated within the Radiation Oncology of HUVH and actively involved in the multidisciplinary treatment of patients with malignant tumors. Also actively involved as IP or research collaborators in a number important clinical trials, translational research projects, as well as technology development programs.

MAIN RESEARCH LINES

- Technological development: the acquisition of new equipment to implement the most modern treatment techniques clinically such as rotational radiotherapy
- Intensity Modulated Arc Therapy (IMAT) radiotherapy and adaptive Image-Guided Radiotherapy (IGRT)
- Translational research: the application of biological knowledge of both cancerous and healthy tissue in order to tailor treatment to the characteristics of each patient and each tumor

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	21.729	10.865

TUMOUR BIOMARKERS



Josep Villanueva Cardus

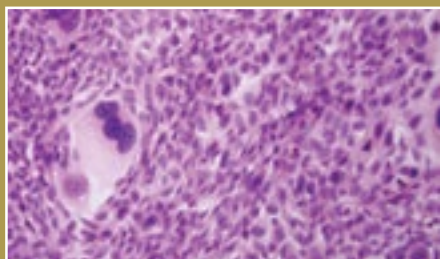


To characterize the mechanisms used by tumor cells to communicate amongst themselves as well as with their microenvironment during tumorigenesis, and exploit this for biomarker discovery. The methodological focus is based on the quantitative profiling of the cancer secretome. The cancer secretome contains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

OTHER RESEARCH LINES

- 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.

AREA 2 ENDOCRINOLOGY AND NEPHROLOGY



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
36	124.305	3.453

The diabetes and metabolism group is mainly addressed to the pathophysiology of diabetic retinopathy and obesity with the final goal of discovering new therapeutic targets.

The pediatrics endocrinology group has the aim to do translational research into pediatric endocrine diseases, human growth disorders of sex development and familiar glucocorticoid deficiency.

The transformed Renal is focused in two main topics: progression of renal insufficiency and atheromatosis in chronic kidney disease. A clinical research facility to monitor observational studies and clinical trials has been built.

DIABETES, METABOLISM

Rafael Simó Canonge



Addressed to the pathophysiology of diabetic retinopathy and obesity to discover new therapeutic targets. Our combination of basic and clinical research facilitates the rapid transference of results to clinical practice. We are coordinating a European Project (EUROCONDOR) funded by EC, with 18 partners from 8 countries. Its aim is to examine the safety and effectiveness of neuroprotective drugs topically administered for preventing or arresting the development of diabetic retinopathy.

MAIN RESEARCH LINES

- Physiopathology of diabetic retinopathy
- Insulin resistance and obesity: new pathogenic candidates and the study of co-morbidities
- Endothelial dysfunction, dyslipidaemia and cardiovascular disease in type 2 diabetes
- Non-invasive monitorization of blood glucose

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
14	51.593	3.685

PEDIATRICS ENDOCRINOLOGY

Antonio Carrascosa Lezcano



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 genes) associations. Anthropometric response to GH therapy according to clinical, biochemical and molecular data
- Familial isolated glucocorticoid deficiency (FGD) (MC2R, MRAP, StAR 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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
12	42.108	3.509

NEPHROLOGY

Daniel Serón Micas



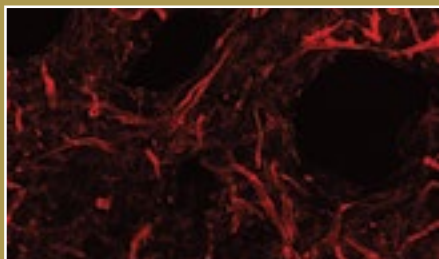
The Renal Unit is divided into three areas: clinical nephrology, dialysis and transplantation. It has undertaken a deep transformation in order to reinforce clinical and basic research that is focused in two main topics: progression of renal insufficiency and atheromatosis in chronic kidney disease. A clinical research facility to monitor observational studies and clinical trials has been built.

MAIN RESEARCH LINES

- Progression of renal insufficiency
- Atheromatosis in chronic kidney disease
- Surveillance biopsies in renal transplantation

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
10	30.604	3.060

AREA 3 HEART AREA



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
70	481.403	6.877

Heart Area fights to minimize the impact of heart diseases based on equilibrated care, research and teaching.

The research program involves different research areas that cover the most relevant heart diseases from a multidisciplinary approach, involving prevention, diagnosis, and treatment, with an emphasis in translation and innovation, and a with a unique premise: prosecution of excellence.

We need to increase the rate of generation of high value knowledge, and, even more urgently, to accelerate the translation of this knowledge to our patients and the society.

CARDIOCIRCULATORY PATHOLOGY

David García-Dorado García



We use a tridimensional approach to generate knowledge on the mechanisms of heart diseases and to generate new diagnostic and therapeutic tools, and better ways to apply those now available, to the prevention and treatment of patients with cardiomyopathies.

MAIN RESEARCH LINES

- Acute coronary syndrome, myocardial ischemia-reperfusion injury, and ventricular remodeling
- Diseases of the aorta
- Valvular heart disease and endocarditis
- Myocardial, pericardial disease, heart failure and arrhythmias
- Familial and congenital heart disease

Transversal lines: a) Molecular and cellular biology, b) biomarkers and imaging, c) genetics and personalized medicine, d) clinical epidemiology, evolution of technologies and outcomes research.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
66	461.788	6.997

REPARATIVE THERAPY OF THE HEART

Manuel Galiñanes Hernández



The Laboratory of Reporative 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.

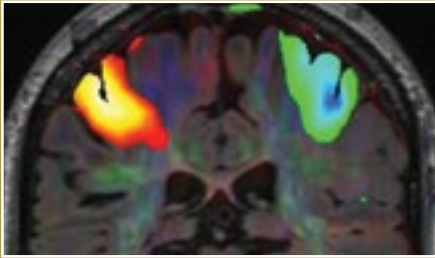
MAIN RESEARCH LINES

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	19.615	4.904



AREA 4 NEUROSCIENCES



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
189	924.318	4.891

Neuroscience area is now leading the translational research at the Institute and is becoming one of the most important clusters of research labs working on neurological diseases across Europe.

We are 12 groups that include more than 100 people fully dedicated to neuroscience research at the bench, many of those are consolidated groups that are also working with many other clinicians at the bedside in the hospital. We have a special area for incubating emerging groups; our idea is that any neuroscientist who wants to do research at our hospital has a place to do it with us.

CLINICAL NEUROIMMUNOLOGY

Xavier Montalban Gairín



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
- Clinical-radiological investigation of PPMS (Primary Progressive MS)
- Research for therapeutic targets and/or therapeutic approaches

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
38	249.420	6.564

PEDIATRIC NEUROLOGY

Alfons Macaya Ruíz



Involved in the study of genetic diseases of the developing nervous system, mainly 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 Neurogenetics
 - Neurogenetics of paroxysmal neurological disorders (neuronal channelopathies)
 - Genetic and epigenetic basis of neural tube defects and Chiari type I malformation
- Pediatric Neuromuscular Disorders

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
7	26.070	3.724

PSYCHIATRY AND MENTAL HEALTH

Miquel Casas Brugué



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

MAIN RESEARCH LINES

- Trimorbidity: TDAH, TLP and Addictions
- Obsessive - compulsive disorders
- Disorder and Attention Deficit Hyperactivity Disorder in adults (ADHD)
- Borderline Personality Disorders (BPD)
- Tabagism
- Dual Pathology / Obsessive
- Transcultural Psychiatry
- Interconsultation Psychiatry in children's Hospitals and Liaison Psychiatry
- Sexual Dysfunctions / Psychiatric Genetics
- Chronic Fatigue
- Suicide
- Post-Traumatic Stress Disorder
- Gender Abuse / Developmental Disorders

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
31	93.250	3.008

NEUROVASCULAR DISEASES

Joan Montaner Villalonga



Neurovascular Research Lab was created in 2001 focused in stroke research from a basic and translational point of view. Dr. Joan Montaner directed the creation of the lab 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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
47	199.226	4.239

NEUROTRAUMATOLOGY AND NEURO-SURGERY RESEARCH GROUP (UNINN)

Joan Sahuquillo Barris



The UNINN, established in late 1990 and fully integrated into the European research community, has been accredited 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 cranio-vertebral junction
- Neuro-oncology

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
9	22.128	2.459

MAGNETIC RESONANCE AND NEURORADIOLOGY

Alex Rovira Cañellas



The multidisciplinary character of our group (neuroradiologists, physicist, biochemist, engineer, and MR technologists) allows us to apply MR techniques to study the pathophysiological mechanisms implicated in pathologies such as multiple sclerosis, hepatic encephalopathy, and stroke, carrying out qualitative and quantitative analyses. We can act as a platform to design and perform projects that includes 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
- Development of software for image analysis

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
22	78.339	3.561

ALZHEIMER

Mercè Boada Rovira



To correlate the specific biomarkers in CSF (beta-amyloid 42 protein, total and phosphorylated Tau) in the extracerebral compartment (plasma). 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. To know the preventive value of nutritional factors related with oxidative stress, antiinflammatory and neurovascular risk. Design and experimental development of new pharmacologic treatments in Alzheimer's disease. Research in genetics to identify new genes associated with Alzheimer's disease.

MAIN RESEARCH LINES

- Signaling proteins
- Research in genetics
- Functional food
- Clinical research in prodromical Alzheimer disease

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
7	35.157	5.022

NEURODEGENERATIVE DISEASES

Miquel Vila Bover



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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
5	54.194	10.839

NEUROMUSCULAR AND MITOCHONDRIAL DISORDERS

Ramon Martí Seves



Focused on the study of pathogenic mechanisms of mitochondrial DNA mutations (mtDNA) associated with diverse neuromuscular syndromes. Understanding the pathogenic mechanisms involved in mutations of structural genes of mtDNA, and the adaptative mechanisms of the cell in the mtDNA depletion syndrome. Genetic and molecular study of diverse neurological syndromes and glycogenesis type V.

MAIN RESEARCH LINES

- Study of pathogenic mechanisms of mutations in mitochondrial DNA (mtDNA) 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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
12	92.785	7.732

CELL SIGNALING AND APOPTOSIS

Joan Xavier Comella Carnicé



Study of proteins with capability of antagonizing death receptor-mediated cell death, mainly that promoted by TNFR1 and Fas signaling, and its relation with survival and other signaling pathways. Contribute to a better understanding of Alzheimer or Parkinson.

MAIN RESEARCH LINES

- Characterization of the role of lifeguard as an antiapoptotic protein
- Relevance and function of the two isoforms of FAIM, the short form (S) and the long form (L), 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 (FAIM, Lifeguard) in the nervous system

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	49.970	12.493

HEADACHE & NEUROLOGICAL PAIN

Patricia Pozo Rosich



Primary headaches (migraine, cluster headache) are very prevalent and extremely disabling. The mission of the Headache & Pain Group is to study the pathophysiology of primary headaches (migraine and trigemino-autonomic cephalalgias) and other neurological pain disorders using preclinical, translational and clinical research. This is the first laboratory in Catalonia and Spain solely dedicated to the study of headache as a brain disorder.

MAIN RESEARCH LINES

- Genetics
- Translational studies
- Preclinical studies
- Clinical trials

PERIPHERAL NERVOUS SYSTEM

Josep Gámez Carbonell

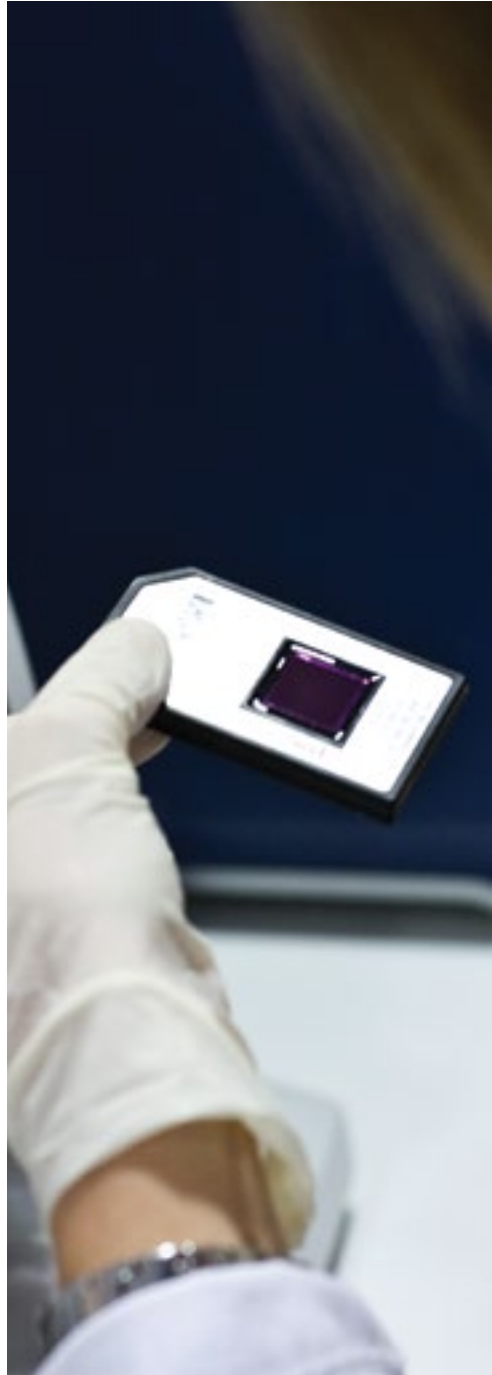


Our laboratory, in the Neuromuscular Disorders Unit of the Neurology Department, has a twenty-year history of providing clinical care and research in amyotrophic lateral sclerosis (ALS) and other motor neuron diseases (hereditary spastic paraplegias, postpolio syndrome, Hirayama's disease, spinal muscular atrophies), myasthenia gravis, genetically determined myopathies, and peripheral neuropathies.

MAIN RESEARCH LINES

- Prevalence of FUS/TLS mutations in a Catalan familial ALS cohort previously studied for SOD1 in 2006
- Clinical/genetic characterization of familial forms of ALS
- Worldwide networking for ALS

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
7	23.779	3.397



AREA 5 DIGESTIVE AND LIVER DISEASES



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
76	505.310	6.649

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 (etiology, virology, epidemiology, pathogenesis and therapy) 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



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 bilepancreatic 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
- Advances in staging of pancreatic cancer
- Post-transplant monitoring in paediatric liver transplantation

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
12	35.191	2.933

LIVER DISEASES

Jaume Guardia Massó



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

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
42	341.955	8.142

PHYSIOLOGY AND PATHOPHYSIOLOGY OF THE DIGESTIVE TRACT

Fernando Azpiroz Vidaur



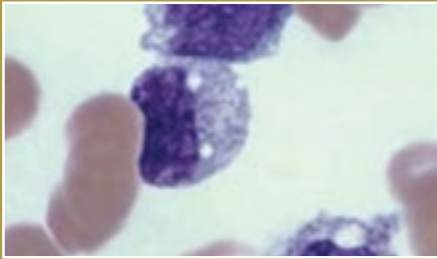
To investigate the integrated function of the intestinal tract including secretion, motility and absorption in health and disease, prioritizing the transmission of knowledge to clinical practice. The research on digestive motility interacts with the disorders of visceral sensitivity, brain-gut axis and intestinal allergy. The research line on intestinal inflammation has also interactions with some aspects of enteric flora in inflammatory bowel disease.

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
22	128.164	5.826

AREA 6 INFECTIOUS DISEASES



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
121	471.632	4.095

Infectious diseases group has the intention of provide answers to the problems that see every day doctors working in the complex environment of a hospital for patients with infectious diseases.

CRIPS group focuses on the most prevalent aspects of infections in the ICU, while SODIR group is the integrated and innovative research in the areas of shock, organ dysfunction and resuscitation.

Microbiology group studies mechanisms of resistance to antimicrobials, pathogenicity, taxonomy and epidemiology, and infectious diseases diagnostics.

INFECTIOUS DISEASES

Albert Pahissa Berga



The ID research group is mainly composed by specialists in Internal Medicine who developed his career as clinicians and clinical researchers in the field of Infectious Diseases. Lines of investigation are driven by daily clinical practice. The development of animal in vitro models of infection in the research Lab is also addressed to solve ID problems that arise in clinical practice.

MAIN RESEARCH LINES

- Community-acquired infections
- Nosohusial infections
- HIV infection
- Infection in non-HIV immunocompromised patients
- Tropical Infectious Diseases and Traveller Medicine

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
46	162.012	3.522

MICROBIOLOGY

Guillem Prats Pastor



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, pathogenicity 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
- Pathogenicity
- Epidemiology
- Molecular diagnostics
- Fungal infections

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
24	86.246	3.594

CLINICAL RESEARCH/INNOVATION IN PNEUMONIA & SEPSIS (CRIPS)

Jordi Rello Condomines



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).
- Epidemiology, control and safety of infection in the ICU
- Lung transplantation at UCI
- Acute respiratory failure and mechanical ventilation
- Nursing care of critical patients

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
48	208.620	4.346

SHOCK, ORGAN DYSFUNCTION & RESUSCITATION

Joaquín Serra Vich



The objective of the group is the integrated and innovative research in the areas of shock, organ dysfunction, resuscitation and in 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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	14.754	4.918



AREA 7 RESPIRATORY AND SYSTEMICS DISEASES



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
67	267.399	3.991

Systemic autoimmune diseases are illnesses of unknown aetiology which present an autoantibody-mediated pathogenicity with a heterogeneous clinical behaviour characterized by different clinical manifestations.

The pneumology group activity is dedicated to inflammation and repair, respiratory failure, and tissue hypoxia.

Immunology group is interested in the physiopathogenic mechanism involved in the evolution and prognosis of patients with Primary Immunodeficiencies and in Antibody production defects.

In this area are also studied the ear, nose and throat disorders as well as the chronic fatigue syndrome.

SYSTEMIC DISEASES

Miguel Vilardell Tarres



Focused on the study of the cutaneous and renal manifestations of lupus disease, the antiphospholipid syndrome, progressive systemic sclerosis, Sjögren syndrome, vasculitis, dermato-polymyositis and rheumatoid arthritis.

Our main research interest is the search of new clinical biomarkers and different treatments through the development of own designed clinical trials and participation in the commercial clinical trials to improve the prognosis of the patients.

MAIN RESEARCH LINES

- DNA methylation study in Systemic Lupus Erythematosus (SLE) patients
- Urinary biomarkers detection in lupus nephritis
- Cancer and myositis.
- Genetic basis of scleroderma
- Construction of a Diagnosis Predictor for the Inflammatory diseases with immune mechanisms (predictor-IMID)

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
32	129.096	4.034

PNEUMOLOGY

Ferran Morell Brotad



The clinical and basic research activity of the Pulmonary Research Group is mainly centered on inflammation and repair, respiratory failure, and tissue hypoxia. Moreover, there is an interrelationship between these efforts and the study of pathologies such as asthma, chronic obstructive pulmonary disease (COPD), lung fibrosis, infections, lung transplantation, pulmonary hypertension, and respiratory sleep disorders.

MAIN RESEARCH LINES

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
26	113.564	4.368

IMMUNOLOGY

Ricardo Pujol Borrell



To improve the laboratory diagnosis and understanding of immune mediated disease, focusing both in primary immunodeficiencies and on those conditions resulting from the lack of tolerance: autoimmune diseases, allergy and transplant rejection. In 2011 the group started a major technological renovation by introducing advance molecular tools for diagnosis and at present it is gaining experience in the application of high throughput technology and bioinformatics.

MAIN RESEARCH LINES

- Advancing diagnostics for orphan primary combined immunodeficiencies
- Immune-tolerance failures as cause of immuno-mediated diseases
- Diagnostic Immunology and other

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
4	19.667	4.917

EAR, NOSE AND THROAT DISORDERS

Juan Lorente Guerrero



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. Research group in obstructive sleep apnea syndrome (osas). Validating diagnostic accuracy of sentinel ganglion in pharyngeal-laryngeal carcinoma T1-2 NO 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.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	2.183	1.091

CHRONIC FATIGUE

José Alegre Martin



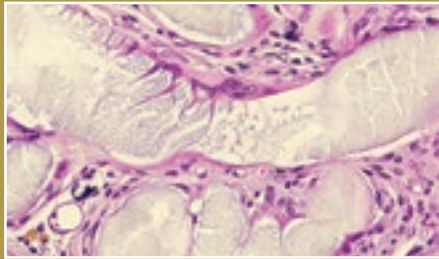
Working on creating a population-based registry of patients suffering from Chronic Fatigue Syndrome (CFS). Study the premorbid personality profile in CFS. Establishment of a DNA bank and study of genetic markers in patients and family members affected by this condition. We also studied the T cell response against pathogens in CFS.

MAIN RESEARCH LINES

- Prevalence XRMV retrovirus infection in patients with chronic fatigue syndrome (CFS) and healthy blood donors, in Catalonia, Spain
- Genetic susceptibility factors in Chronic Fatigue Syndrome
- Psycopathology of Chronic Fatigue Syndrome
- Role of the nurses in the diagnostic and treatment of chronic fatigue syndrome
- Population-based registry of chronic fatigue syndrome patients diagnoses in Spain

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	2.889	0.963

AREA 8 GYNECOLOGY AND PEDIATRICS DISEASES, EXPERIMENTAL SURGERY



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
34	100.077	2.943

In this area there are seven groups with different research interests.

The Maternal Fetal Medicine and the Bio-engineering, 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.

NEURO-SPINAL PATHOLOGY STUDY

Carlos Villanueva Leal



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

MAIN RESEARCH LINES

- Adolescent Idiopathic Scoliosis and quality of life
- Multi-center prospective study and database: Clinical Outcomes following conservative and surgical treatment of adult spine deformity. Relevance of coronal and sagittal spinopelvic parameters
- Vertebral fractures
- Vertebral tumours
- New therapies to achieve bone fusion: advanced cellular therapy with mesenchymal cells

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
6	19.463	3.244

ROBOTIC AND CRANIOFACIAL SURGERY

Guillem Raspall Martin



Research and development of applications of robotics and information and image technologies in craniofacial surgery.

MAIN RESEARCH LINES

- Robotics
- Imaging technologies and virtual reality
- Microsurgery

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	3.766	3.766

OPHTHALMOLOGY

José García Arumí



Our main areas of research include retinal vascular disease, inside which we are focused on the physiopathology of diabetic macular edema; physiopathology and treatment of retinal vein occlusions and new treatments for retinal artery occlusions through experimental models; retinal detachment, upon which we are interested on the development of a new surgical technique for its treatment and the physiopathology of vitreoretinal proliferation; age-related macular degeneration (ADM), inside which we are studying genetic risk factors and the role played by inflammation in its pathogeny of uveitis, concretely the pathogeny of uveitic macular edema and the role played by antiangiogenic drugs in the treatment of this disorder.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	2.774	2.774

MATERNAL FETAL MEDICINE

Lluís Cabero Roura



There is a powerful and established synergy within the Maternal and Fetal Health Research Centre (www.medfetal.org) and VHIR that provides the resources to develop eight different lines of research:

MAIN RESEARCH LINES

- Lipid metabolism and oxidative stress in PE
- Angiogenic factors and uterine artery Doppler in the prediction of PE and IUGR
- Maternal and fetal cardiac function in PE and IUGR: cardiovascular risk
- Preterm birth: prediction and prevention
- Obesity in pregnancy
- Use of 3D-4D in fetal abnormalities
- Twin-to-twin transfusion syndrome
- Experimental and clinical fetal therapy

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
6	15.047	2.508

GENETICS

Alberto Plaja Rustein



Study of genetic basis of human diseases, with special emphasis on those of chromosomal and genomic origin.

MAIN RESEARCH LINES

- Study of complex and cryptic chromosomal reorganization and its phenotypic consequences
- Study of aneuploidy and chromosomal instability
- Study of segmental duplications, genomic reorganization and phenotypic consequences
- Study of genetic basis of autism spectrum disorders (ASD)
- Study of fetal alcohol syndrome
- Clinical and molecular studies of Williams syndrome
- Elaboration of computer tools to welfare development of clinical genetics and attention to rare diseases
- Genetics of cardiopathies

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
3	11.141	3.714

BIOENGINEERING, ORTHOPEDICS AND SURGERY IN PEDIATRICS

César Galo Garcia Fontecha



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

MAIN RESEARCH LINES

- Bone formation
- Neuromuscular pathology
- Fetal malformation pathology
- Fetal surgery

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
11	27.598	2.509

GENERAL AND GASTROINTESTINAL SURGERY

Manel Armengol Carrasco



The group aims 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 achieve this goal, interdisciplinary basic (molecular and cellular), translational and clinical research is performed, with particular attention to abdominal wall, colorectal, and endocrine and bariatric surgery

MAIN RESEARCH LINES

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
6	20.288	3.381

AREA T1 EPIDEMIOLOGY, PHARMACOLOGY, NEW THERAPIES, CLINICAL RESEARCH



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
30	86.317	2.877

Important transversal area with five groups. The Clinical Pharmacology group works on the effectiveness and the adverse effects of medicines in clinical practice.

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 new recently created group of health care that generates knowledge in the specific area of activity of nurse.

EPIDEMIOLOGY AND PUBLIC HEALTH

Josep Vaqué Rafart



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

MAIN RESEARCH LINES

- Nosocomial infections epidemiology: Studying evolution, features, host and healthcare-associated factors and impact of these infections
- Preventive vaccines: Developing studies on effectiveness and characteristics of use of preventive vaccines in hospital and community context

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
11	20.512	1.865

CLINICAL PHARMACOLOGY

Joan-Ramon Laporte Roselló



Our main research field is pharmacoepidemiology, with a special focus on the research on effectiveness of medicines utilization and adverse effects in clinical practice. FICF is part of the European Network of Centres for Pharmacoepidemiology and Pharmacovigilance, coordinated by the European Medicines Agency and of the PROTECT Group, a public-private consortium funded by the European Commission's IMI Initiative. It is also part of the UAB Research Park.

MAIN RESEARCH LINES

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
16	54.600	3.412

CELL AND GENE THERAPY

Jordi Barquinero Mañez



One of our main goals is to understand the immune aspects of hematopoietic gene therapy and how to use gene therapy tools to induce immune tolerance, using preclinical cellular and animal models. Researchers of this group and others, including the VHIR scientific director, are planning a pioneering research center for new and emerging technologies, therapies and medicines known as advanced-therapy medicinal products (ATMPs).

MAIN RESEARCH LINES

- Transgene immunology and tolerance induction by hematopoietic gene therapy
- Preclinical studies on gene therapy for Mitochondrial NeuroGastroIntestinal Encephalomyopathy (MNGIE)
- Use of iPSC as a model for hematopoietic gene therapy of hereditary diseases of the immuno-hematopoietic system

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	4.538	4.538

MOLECULAR DIAGNOSIS AND THERAPY

Francisco Vidal Pérez



The Molecular Diagnosis and Therapy Unit (UDTM) is linked with the Hemophilia Unit of Vall d'Hebron in the development of molecular protocols applicable to genetic counseling, prenatal and preimplantation 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.

MAIN RESEARCH LINES

- Identification of mutations responsible for hemophilia A and B in the Spanish population.
- Molecular diagnosis of von Willebrand disease
- Establishment of protocols and genetic study of the rare monogenic bleeding disorders
- Exploring alternatives for the recombinant human factor VIII production by means of novel yeast expression systems

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	5.439	5.439

HEALTH CARE RESEARCH

Carmen Fuentelsaz Gallego



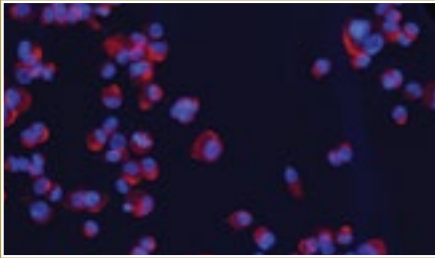
The group of health care research develops its research with the aim of generating knowledge in the specific area of activity of nurses, care, in order to translate that results to clinical practice and collaborate with other health professionals to improve care given to patients with quality care based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

MAIN RESEARCH LINES

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	1.228	1.228

AREA T2 CIBBIM-NANOMEDICINE



TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
11	43.031	3.912

Nanomedicine can be defined as the use of nanotechnology in biomedical applications mainly with two purposes: first, to improve therapeutic strategies and second, to improve the diagnostics.

We work in three different areas: the first one aims to obtain new biomarkers and therapeutic targets, the second one to obtain and generate new diagnosis systems, most of the based on the same biomarkers or targeting systems obtained in the first area. The third area is the one devoted to the validation of those systems in preclinical models, meaning either in vitro or in vivo models.

NANOMEDICINE DRUG DELIVERY AND TARGETING

Simó Schwartz Navarro



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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	7.164	7.164

NANOMEDICINE MOLECULAR ONCOLOGY

Diego Arango Corro



The main interest of our Laboratory is the study of molecular events underlying the oncogenic process, especially in colorectal cancer. In 2008 colorectal 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

NANOMEDICINE IMMUNOBIOLOGY

Joan Sayós Ortega



The CD300 family of immunoreceptors is composed by six members that share an extracellular region comprising a single Ig-like domain and, with the exception of CD300a, a myeloid lineage restricted pattern of expression. CD300a is found in some subsets of T, B and NK cells. The Immunobiology group is focused on the study of the structure and function of the CD300 family of immune receptors, as well as in their involvement in different human pathologies.

MAIN RESEARCH LINES

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

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	6.963	3.482

NANOMEDICINE LYSSOMAL STORAGE DISEASES AND CELL PATHOPHYSIOLOGY

Mari Carmen Domínguez Luengo



Diagnosis and study of critical cellular mechanisms in the pathogenesis of lysosomal storage diseases. Involvement of oxidative stress in the pathophysiology and evolution of type 1 diabetes mellitus, gestational diabetes and metabolic syndrome in children. Molecular mechanisms of cellular toxicity of oxidative hyperglycaemia and toxic dyslipidaemia. Study of pathogenic mechanisms and cellular stress response in pre-eclampsia, congenital heart defects and intrauterine growth restriction. Identification of maternal risk factors for these 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.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
2	4.566	2.283

NANOMEDICINE KIDNEY PHYSIOPATHOLOGY

Anna Meseguer Navarro



Our group focuses towards the study of molecular and cellular mechanisms contributing to kidney diseases in four main areas as:

- Acute kidney injury by nephrotoxics, mechanisms of repair and regeneration;
- Cardiovascular injury associated to chronic kidney disease progression, in relation to gender differences;
- Finding of early biomarkers anticipating post-transplantation recurrence of focal segmental glomerulosclerosis;
- Renal cancer. Through the understanding of the underlying mechanisms of disease, and in collaboration with clinical groups, we aim towards identification of biomarkers and novel therapeutic targets to translate into clinical practice.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
5	21.887	4.377

NANOMEDICINE BASIC RESEARCH IN AGING

Jaume Alijotas Reig



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 immunological alterations as the basis of cellular immunosenescence. Identification of such alterations might provide us with new candidates for therapeutic intervention.

MAIN RESEARCH LINES

- Immunological alterations as basis of immunosenescence in pathological aging.
- Endothelial senescence and their pleiotropic effects onto inflammatory processes, immunological response and angiogenesis.

TOTAL PUBLICATIONS	IMPACT FACTOR	AVG. IMPACT FACTOR
1	2.451	2.451





FACTS AND FIGURES

More information:
www.vhir.org/annualreport2011

PUBLICATIONS

Total

PUBLICATIONS

656
I.F.: 3,378.185

Papers

INTERNATIONAL

482
I.F.: 2,879.157

NATIONAL

74
I.F.: 89.993

Reviews

INTERNATIONAL

44
I.F.: 199.260

NATIONAL

13
I.F.: 14.270

Editorials

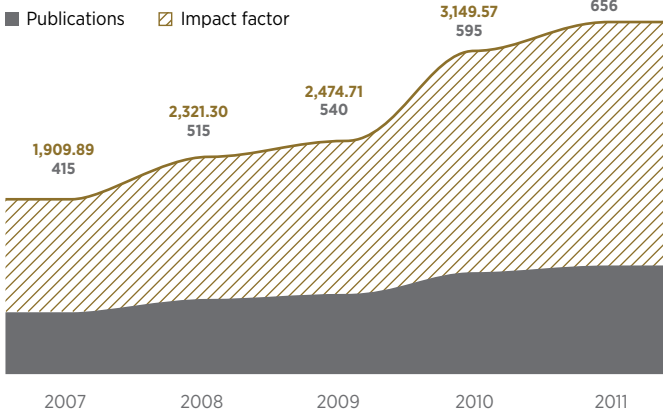
INTERNATIONAL

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I.F.: 174.727

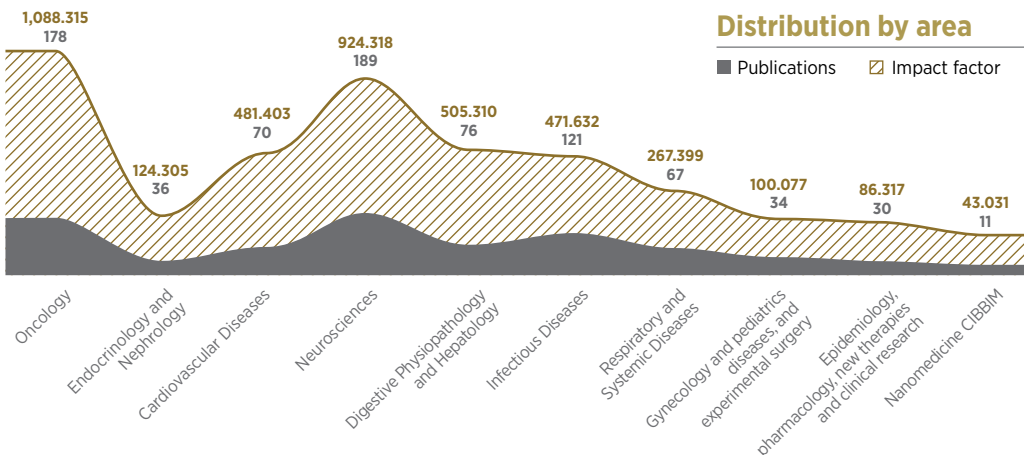
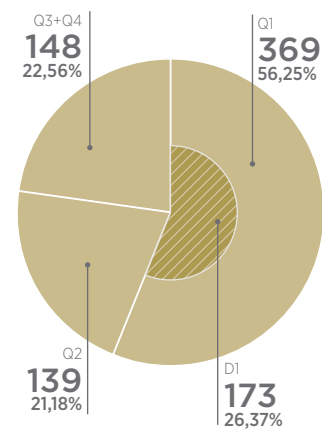
NATIONAL

14
I.F.: 20.778

Evolution in the last five years



Per quartiles & 1st deciles



Co-authors international publications

TOTAL

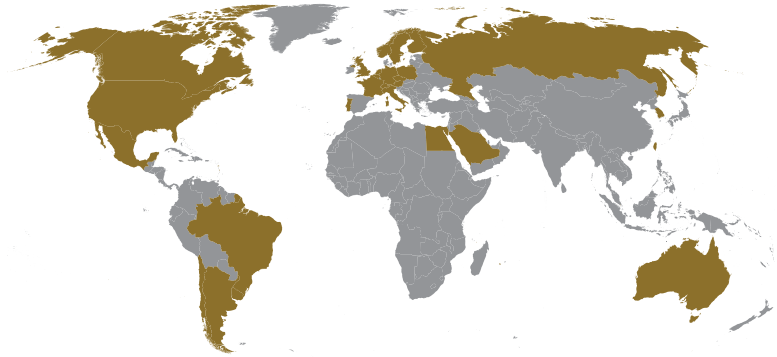
240

COLLABORATIVE CENTRES

206

COUNTRIES

31



Number of papers published in relevant scientific journals during 2011

JOURNAL	ARTICLES	IMPACT FACTOR
NEW ENGLAND JOURNAL OF MEDICINE	7	53.484
NATURE GENETICS	1	36.377
NATURE	3	36.101
LANCET	2	33.633
NATURE REVIEWS NEUROSCIENCE	1	29.51
CANCER CELL	1	26.925
NATURE IMMUNOLOGY	1	25.668
LANCET NEUROLOGY	3	21.659
JOURNAL OF CLINICAL ONCOLOGY	5	18.97
LANCET INFECTIOUS DISEASES	1	16.144
MOLECULAR PSYCHIATRY	1	15.47
JOURNAL OF THE NATIONAL CANCER INSTITUTE	1	14.697
CIRCULATION	3	14.429
JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY	1	14.292
NATURE NEUROSCIENCE	1	14.191
BRITISH MEDICAL JOURNAL	1	13.471
GASTROENTEROLOGY	4	12.032
AMERICAN JOURNAL OF HUMAN GENETICS	1	11.68
HEPATOLOGY	3	10.885
Nature Reviews Clinical Oncology	1	10.787
ANNALS OF NEUROLOGY	4	10.746
ARCHIVES OF INTERNAL MEDICINE	1	10.639
GUT	3	10.614
BLOOD	4	10.558

Most relevant publications of each research group

Research Group	I.F.	article
Oncology		
Research unit in biomedicine and translational and pediatrics oncology	7.338	Clin Cancer Res. 2011 Feb 1;17(3):505-13
Molecular pathology	7.414	Oncogene. 2011 May 5;30(18):2087-97
Experimental hematology	10.558	Blood. 2011 Oct 20;118(16):4401-10
Oncology and molecular pathology	7.414	Oncogene. 2011 May 5;30(18):2087-97
Animal model and cancer	6.12	Sci Signal. 2011 Sep 13;4(190):ra58
VHIO- Experimental Therapeutics	26.925	Cancer Cell. 2011 Jan 18;19(1):58-71
VHIO- Gastrointestinal Tumors	36.377	Nat Genet. 2011 Sep 4;43(10):964-8
VHIO -Growth factors and cancer	14.191	Nat Neurosci. 2011 May;14(5):562-9
VHIO- Proteomics	7.414	Oncogene. 2011 Apr 21;30(16):1912-22
VHIO- Radiation oncology	18.97	J Clin Oncol. 2011 Jul 10;29(20):2815-20
VHIO-Stems cells and cancer	4.411	PLoS One. 2011;6(8):e23524
Endocrinology and nephrology		
Diabetes, Metabolism	6.973	Diabetologia. 2011 Jun;54(6):1543-53
Pediatrics Endocrinology	6.495	J Clin Endocrinol Metab. 2011 Sep;96(9):E1457-60
Nephrology	6.048	Am J Transplant. 2011 Sep;11(9):1965-71
Heart area		
Cardiocirculatory pathology	36.101	Nature. 2011 Oct 5;478(7367):114-8
Reparative Therapy of the Heart -	14.292	J Am Coll Cardiol. 2011 Aug 23;58(9):977-86
Neurosciences		
Clinical neuroimmunology	36.101	Nature. 2011 Aug 10;476(7359):214-9
Pediatric neurology	11.68	Am J Hum Genet. 2011 Nov 11;89(5):656-67
Psychiatry and mental health	6.685	Neuropsychopharmacology. 2011 Oct;36(11):2318-27
Neurovascular diseases	5.935	J Intern Med. 2011 Aug;270(2):166-74
Neurotraumatology and neurosurgery research group (UNINN)	6.254	Crit Care Med. 2011 Jun;39(6):1263-8
Magnetic resonance and neuroradiology	8.017	Neurology 2011 Feb 15;76(7):629-36
Alzheimer	8.017	Neurology 2011 May 17;76(20):1720-5
Neurodegenerative diseases	29.51	Nat Rev Neurosci. 2011 Jul 20;12(8):437-52
Group of Neuromuscular and Mitochondrial Disorders	9.543	PLoS Genet. 2011 Mar;7(3):e1002035
Cell signaling and apoptosis	5,121	Neurobiol Dis. 2011 Jun;42(3):415-26
Peripheral nervous system	3.397	Amyotroph Lateral Scler. 2011 Jan;12(1):70-5
Digestive and liver diseases		
Digestive transplants	3.068	Liver Transpl. 2011 Dec;17(12):1474-80
Liver diseases	53.484	N Engl J Med. 2011 Mar 31;364(13):1207-17
Physiology and pathophysiology of the digestive tract	36.101	Nature. 2011 May 12;473(7346):174-80

Research Group	I.F.	article
Infectious Diseases		
Infectious Diseases	10.639	Arch Intern Med. 2011 Jan 24;171(2):166-72
Microbiology	4.659	J Antimicrob Chemother. 2011 Mar;66(3):517-26
Clinical Research/Innovation in Pneumonia & Sepsis (CRIPS)	16.144	Lancet Infect Dis. 2011 Jan;11(1):30-8
Shock, Organ Dysfunction & Resuscitation	7.474	Ann Surg. 2011 Aug;254(2):252-6
Respiratory and systemics diseases		
Systemic diseases	9.082	Ann Rheum Dis. 2011 Mar;70(3):454-62
Pneumology	5.922	Eur Respir J. 2011 Feb;37(2):289-98
Immunology	8.136	J Autoimmun. 2011 May;36(3-4):189-200
Ear, Nose and Throat disorders	1.413	Med Clin (Barc). 2011 Jul 23;137(5):230-5
Chronic Fatigue	1.413	Med Clin (Barc). 2011 Mar 12;136(6):239-243
Gynecology and pediatrics diseases, experimental surgery		
Neuro-spinal pathology study	3.024	Spine (Phila Pa 1976). 2011 Aug 1;36(17):E1154-61
Robotic and craniofacial surgery	3.766	Clin Nucl Med. 2011 Apr;36(4):273-6
Ophthalmology	2.774	Retina. 2011 Oct;31(9):1777-82
Maternal Fetal Medicine	4.357	Hum Reprod. 2011 Oct;26(10):2807-18
Genetics	4.38	Eur J Hum Genet. 2011 Dec;19(12):1218-25
Bioengineering, orthopedics and surgery in pediatrics	3.024	Spine (Phila Pa 1976). 2011 Aug 1;36(17):E1154-61
General and Gastrointestinal Surgery	5.224	Am J Pathol. 2011 Jun;178(6):2641-53
Epidemiology, Pharmacology, New Therapies, Clinical Research		
Epidemiology and public health	2.358	Clin Exp Rheumatol. 2011 Sep-Oct;29(5):846-9
Clinical pharmacology	4.411	PLoS One. 2011;6(5):e19819
Cell and gene therapy	4.538	Gene Ther. 2011 Aug;18(8):795-806
Molecular diagnosis and therapy	5.439	J Thromb Haemost. 2011 Apr;9(4):679-88
Health care research	1.228	J Clin Nurs. 2011 Jul;20(13-14):1936-47
CIBBIM - Nanomedicine		
CIBBIM - Nanomedicine Drug Delivery and Targeting	7.164	J Control Release. 2011 Dec 10;156(2):246-57
CIBBIM - Nanomedicine Immunobiology	5.745	J Immunol. 2011 Dec 1;187(11):5577-86
CIBBIM - Nanomedicine lysosomal storage diseases and cell pathophysiology	2.388	Clin Chim Acta. 2011 Jan 30;412(3-4):365-9
CIBBIM - Nanomedicine Kidney physiopathology	5.707	Free Radic Biol Med. 2011 Nov 15;51(10):1831-41
CIBBIM - Nanomedicine Basic research in aging	4.392	Obstet Gynecol. 2011 Nov;118(5):1181-2

RESEARCH PROJECTS AND NETWORKS

ACTIVE RESEARCH PROJECTS

269

AREA 1

39

AREA 2

18

AREA 3

24

AREA 4

67

AREA 5

29

AREA 6

16

AREA 7

13

AREA 8

23

AREA T1

11

AREA T2

15

OTHER

14

List of active research projects

SPONSORS	PROJECTS
Fondo de Investigación Sanitaria (FIS), Instituto de Salud Carlos III	124
European Commission	18
Ministerio de Ciencia e Innovación	27
Fundació La Marató de TV3	9
Fundación de la Investigación Médica – Mutua Madrileña Automovilista	12
Fundación para la Investigación y la Prevención del Sida en España (FIPSE)	4
Centro para el Desarrollo Tecnológico Industrial (CDTI)	7
Centro Nacional de Investigaciones Cardiovasculares (CNIC)	1
Asociación Española contra el Cáncer	4
Genoma España	2
Fundación Alicia Koplowitz	2
Fundació Santiago Dexeus Font	3
CIDEM – ACCIÓ	2
Other	54

Researchers new contracts

SENIOR RESEARCHERS	8
Miguel Servet Programme	2
Intensification Programme contracts – Instituto de Salud Carlos III	4
Research Retainment Programme – Instituto de Salud Carlos III	1
ISIS Programme – Instituto de Salud Carlos III	1

POSTDOC RESEARCHERS	8
Río Hortega Programme	4
Juan de la Cierva Programme	1
Sara Borrell Programme	1
Other	2

PREDOC RESEARCHERS	26
Instituto de Salud Carlos III	5
Fundació VHIR	4
Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR)	2
Ministerio de Ciencia e Innovación	1
Contracts stemming from Research Projects	14

SUPPORT STAFF	6
Instituto de Salud Carlos III	1
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 Brotd
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 Pérez
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
RD06/0020/0022	Red Temática de Investigación Cooperativa de Centros de Cáncer	Joaquín Arribas López
RD06/0020/0075	Red Temática de Investigación Cooperativa de Centros de Cáncer	José Baselga Torres
RD06/0014/0025	Factores de Riesgo. Evolución y Tratamiento de las Enfermedades Cardiovasculares (RECAVA)	David García-Dorado
RD06/0008/0030	Red Española de Investigación en Patología Infecciosa (REIPI)	Antoni Julià Font
RD06/0026/0010	Red Neurovascular (RENEVAS)	Joan Montaner Villalonga
RD06/0008/0026	Red Española de Investigación en Patología Infecciosa (REIPI)	Albert Pahissa Berga
RD06/0020/0104	Red Temática de Investigación Cooperativa de Centros de Cáncer	Santiago Ramón y Cajal Agüeras
RD06/0020/0058	Red Temática de Investigación Cooperativa de Centros de Cáncer	Jaume Reventós Puigjaner
RD06/0006/0039	Red de Investigación en Sida (RIS)	Esteban Ribera Pascuet
RD06/0020/1021	Red Temática de Investigación Cooperativa de Centros de Cáncer	Josep Sánchez de Toledo Codina
RD06/0014/1014	Factores de Riesgo. Evolución y Tratamiento de las enfermedades cardiovasculares (RECAVA)	Rafael Simó Canonge
RD07/0062/0010	Patología ocular del envejecimiento. calidad visual y calidad de vida	José García Arumí
RD07/0060/0020	Red Española de Esclerosis Múltiple (REEM)	Xavier Montalban Gairín
RD08/0072/0034	Red de Salud Materno-Infantil y del Desarrollo	Lluís Cabero Roura
RD09/0077/00090	Red de Innovación en Tecnologías Médicas y Sanitarias	Francesc Iglesias García
RD09/0076/00066	Red Temática de Investigación Cooperativa de Biobancos	Santiago Ramón y Cajal Agüeras

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 Pérez	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
2009 SGR 1226	Jordi Rello Condomines	Grup de recerca en Sèpsia i infecció respiratòria greu
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

255

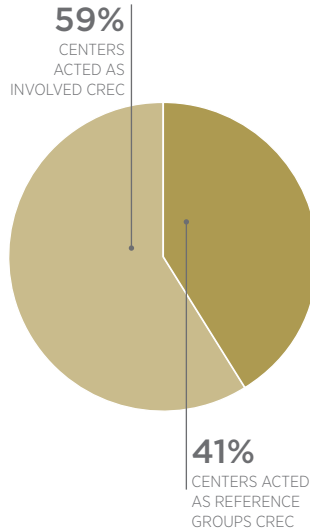
MULTICENTER TRIALS

216

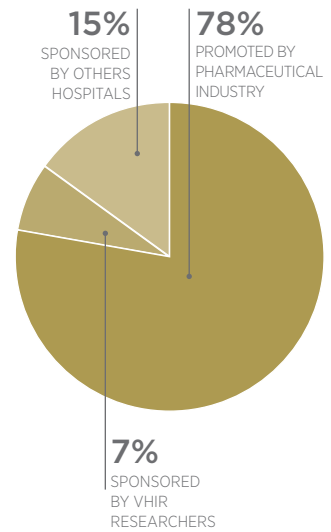
UNICENTER TRIALS

39

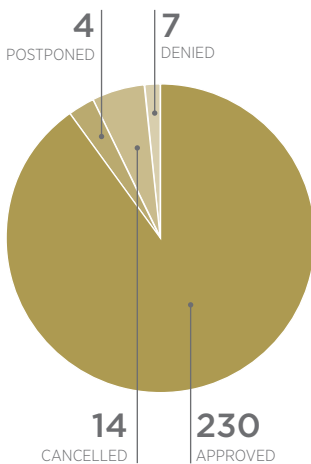
Multicenter trials



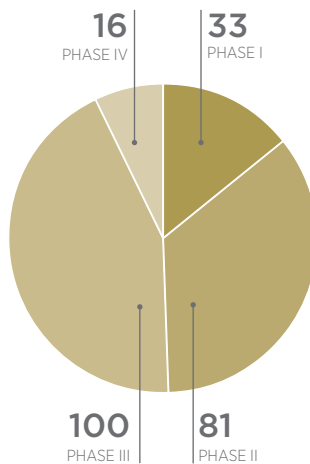
Submitted trials



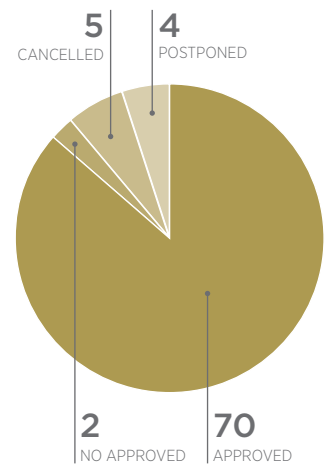
Clinical trials submitted to CREC



Clinical trials approved by CREC, according to the trial phase



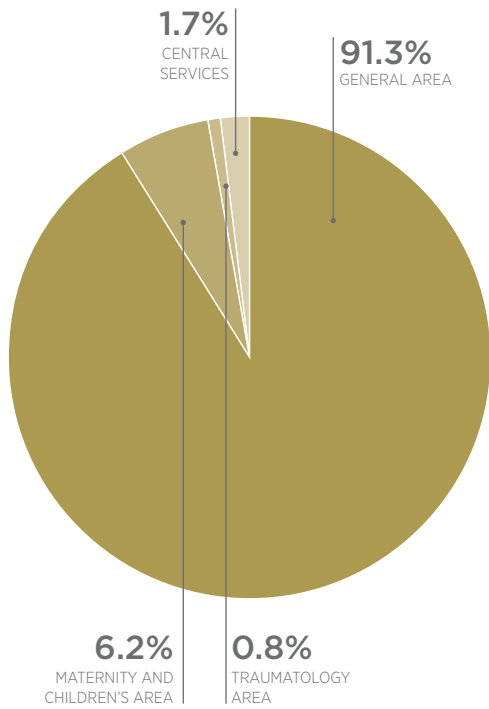
Post-authorizations Studies submitted to CREC



List of active clinical trials at 31st of December of 2011, classified according services

HOSPITAL SERVICES	NUMBER
General Area	574
Oncology	266
Internal Medicine-Hepatology	33
Neurotraumatology	6
Internal Medicine - Infectious Diseases	20
Cardiology	21
Pneumology	24
Internal Medicine	7
Nephrology	12
Hematology	43
General Surgery	8
Endocrinology	17
Digestive Apparatus	4
Urology	4
ICU	2
Haemophilia	10
Neuroimmunology	32
Allergies	2
Internal Medicine - Rheumatology	8
Ophthalmology	9
Neurophysiology, Neurology and Neurosurgery	21
Dermatology	1
Radiotherapy	3
Hemodynamics	3
Cirurgia maxilofacial	1
Systemic diseases	14
Institut de diagnòstic per la imatge	2
Maternity and Children's Area	39
Pediatric oncohematology	14
Pediatric Endocrinology	1
Neonatology	1
Pediatric Pneumologya	4
Pediatric genetics	1

HOSPITAL SERVICES	TITLE
Pediatric neurology	3
Obstetrics and Gynecology	12
Pediatric Surgery	1
Traumatology Area	5
Rehabilitation	2
Anesthesiology	2
Burn Unit	1
Central services	11
Psychiatry	11
Total	629



EVENTS AND SEMINARS

ACTIVITIES AT VHIR

207

EXTRAORDINARY CONFERENCES

4

COURSES

51

SEMINARS

154

EXTRAORDINARY CONFERENCES

Sciences Workshops	2
5th Scientific Session VHIR	1
XV Conferència Anual HUVH	1

COURSES

Other courses VHIR	9
USMIB	3
UEB	4
UCICAC	4
UCTS	2
Occupational Risk prevention	28

SEMINARS

VHIR	37
VHIR briefing	7
Cardiology	22
Gastroenterology	27
Neuroscience	19
Neurosurgery Neurosurgery	8
Oncology	1
Seminars de Biomedicina i Innovació	3
Nano Seminars CIBBIM-Nanomedicina	7
Hematology	7

THESIS

DOCTORAL THESIS READ

50

UAB

41

UB

8

ROVIRA I VIRGILI

1

INNOVATION

NEW PROJECTS 2011

52

INVENTIONS

32

COOPERATIVE PROJECTS

20

TOTAL PROJECTS

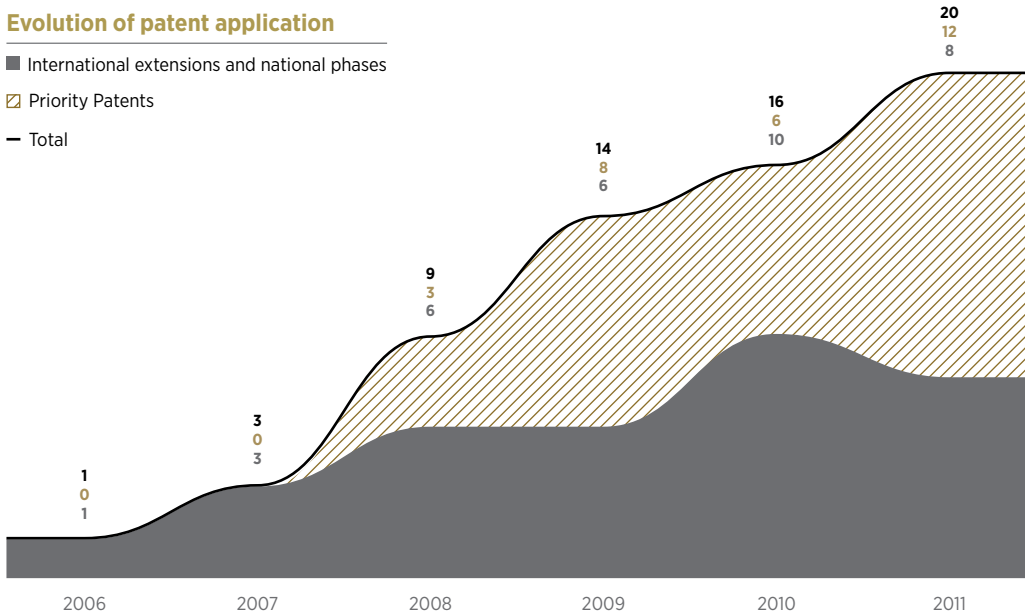
89

PREVIOUS PROJECTS 2011

37

Evolution of patent application

- International extensions and national phases
- ▨ Priority Patents
- Total



ECONOMIC SUMMARY

TOTAL FINANCING (M€)

37.9

VHIR (M€)

33.4

HUVH (M€)

3.5

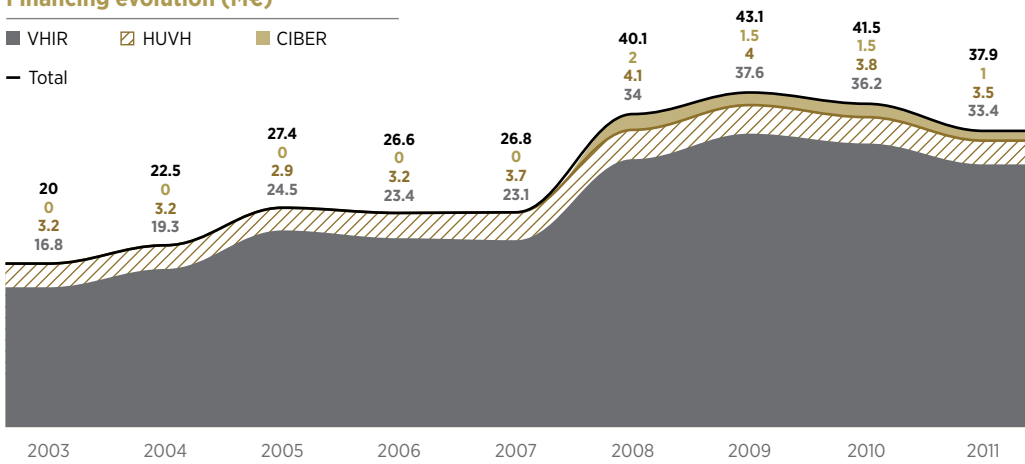
CIBER (M€)

1

Financing evolution (M€)

■ VHIR ▨ HUVH ■ CIBER

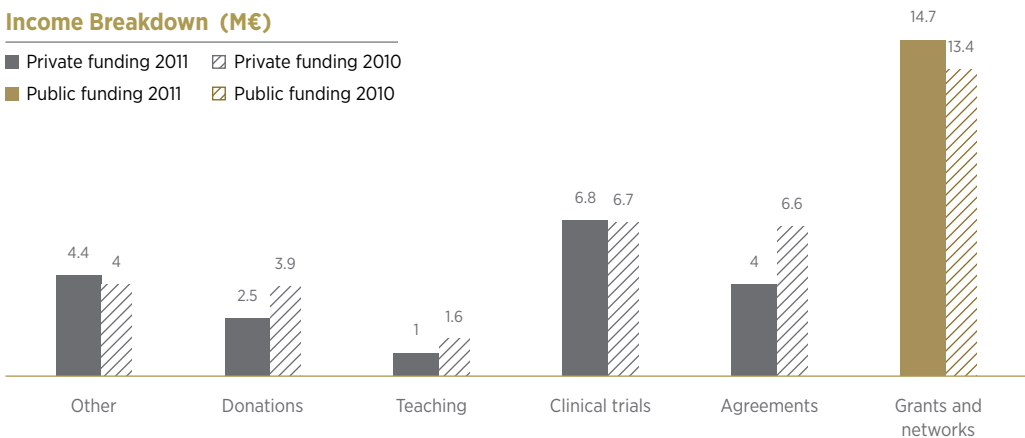
— Total



Income Breakdown (M€)

■ Private funding 2011 ▨ Private funding 2010

■ Public funding 2011 ▨ Public funding 2010



RESEARCHERS AND TECHNICIANS

RESEARCH STAFF

830

RESEARCHERS

544

POSTDOCS

86

PREDOCS

200

SUPPORTING RESEARCH STAFF

429

GRADUATES

133

NURSES, ATS, DUI

38

LABORATORY TECHNICIANS

147

ADMINISTRATIVE STAFF

87

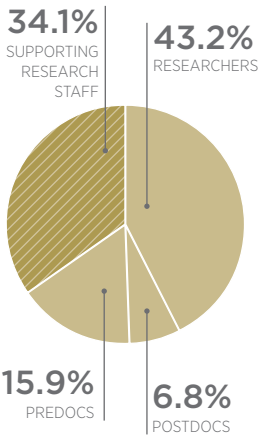
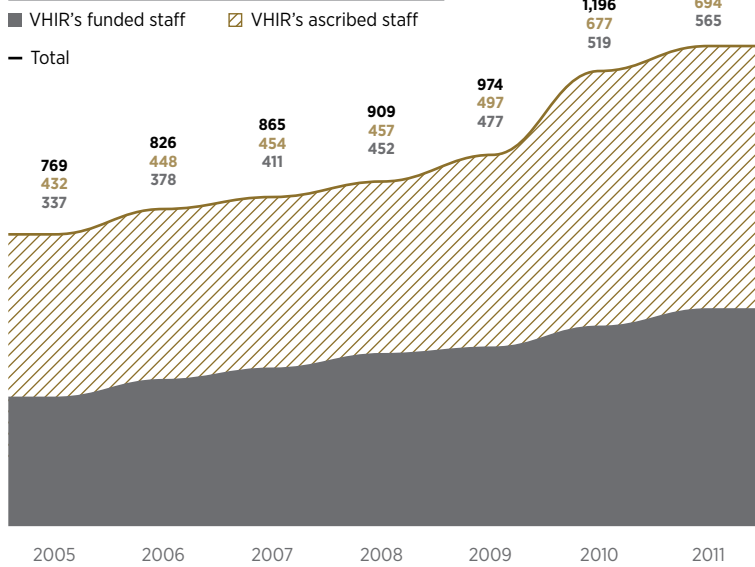
OTHERS

24

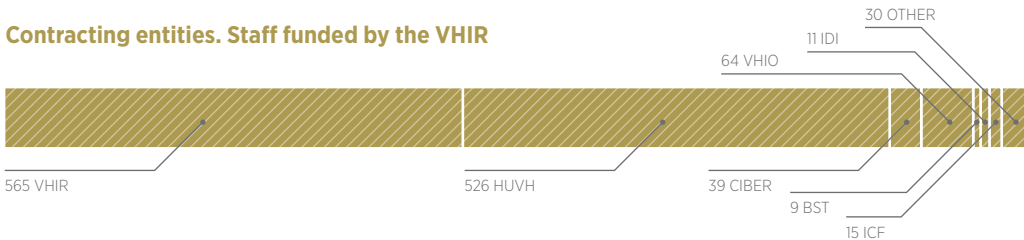
TOTAL

1,259

Evolution of the staff over the last 7 years



Contracting entities. Staff funded by the VHIR





HIGHLIGHTS

More information:
www.vhir.org/annualreport2011

SCIENTIFIC HIGHLIGHTS



GUT BACTERIA DIVIDE PEOPLE INTO 3 TYPES



VHIR'S RESEARCH ON MICROBIOME, RUNNER UP OF THE SCIENCE BREAKTHROUGH OF THE YEAR 2011



VHIR LEADS EUROPEAN PROJECT FOR THE EARLY TREATMENT OF BLINDNESS DUE TO DIABETES



HUVH OPERATES A FETUS AFFECTED WITH SPINA BIFIDA WITH A PIONEERING TECHNIQUE IN THE WORLD



VHIR PARTICIPATES IN MULTIPLE SCLEROSIS RESEARCH THAT DOUBLES NUMBER OF GENES ASSOCIATED WITH THE DISEASE



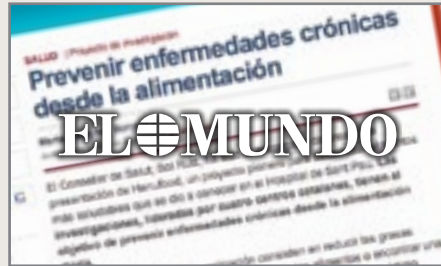
IDENTIFIED GENES THAT ALLOW THE OUTPATIENT DIAGNOSIS OF ENDOMETRIAL CANCER



VHIR STUDY EXPLAINS HOW TO BLOCK METASTASIS IN CHILDHOOD RHABDOMYOSARCOMA



PROVED THE BENEFITS OF A NOT APPROVED DRUG FOR THE TREATMENT OF ADHD IN ADULTS



VHIR COLLABORATES WITH HENUFOOD TO INVESTIGATE HOW TO PREVENT CHRONIC DISEASE THROUGH USUAL FOODS

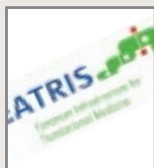


VHIR'S RESEARCH IS KEY FOR THE CUSTOMIZATION OF THERAPY FOR HEPATITIS B AND C



DISCOVERY OF A NEW GENETIC MECHANISM RESPONSIBLE FOR CARDIAC HYPERTROPHY

INSTITUTIONAL HIGHLIGHTS



VHIR PARTICIPATES IN THE OFFICIAL START OF EATRIS TO DEVELOPING EUROPE'S TRANSLATIONAL RESEARCH OF THE FUTURE



VHIR LEADS PROJECT GRANTS FOR HEALTH RESEARCH FROM INSTITUTO DE SALUD CARLOS III



'FAVORITES ON THE WEB 2011' AWARD TO WWW.VHIR.ORG



THE 5TH SCIENTIFIC SESSION AND THE 15TH ANNUAL CONFERENCE HIGHLIGHT THE BEST OF VHIR

VHIR STRATEGIC ALLIANCES





Vall d'Hebron
Institut de Recerca

VHIR

Vall d'Hebron Institut de Recerca (VHIR)
Hospital Universitari Vall d'Hebron
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Vall d'Hebron
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