Health Research Institute of
Santiago de Compostela

Annual Report 2014

Edition

José Castillo Sánchez
Scientific Director of the Health Research Institute of Santiago de Compostela

Production

Technical Secretary of the Health Research Institute of Santiago de Compostela

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Aprobation

Direction Board of the Institute met in Santiago de Compostela on 16 March 2015

Greeting

José Castillo Sánchez
Scientific Director

I again welcome you to the Annual Activity Report of the IDIS. I am pleased to present you the report of the past 2014. It was a period of consolidation of operations, opening up new and exciting long-distance projects and making bigger the strength of our research center, a great example of excellence for biomedical research in Galicia, Spain and Europe.

I am delighted to lead a high level human team, so strongly committed to the present and future of the excellence in health research, always at the service of citizens. They are a group of highly trained professionals who know how to respond individually and collectively to the challenges the society poses us in its unstoppable evolution.

These 12 months of work we have assumed the responsibility of leading biomedical research in our context. The more than two hundred clinical trials and observational studies launched by the different IDIS research groups support our organizational model. We have received more than 18 million of euros that we have invested in funding research activity ‘transformed’ into direct improvements in the quality of human life.

Our vocation of leadership is not incompatible with the collaborative work we face with other

Galician agents, sharing knowledge, staff or infrastructure. Joining our effort makes us stronger and brings us closer to our common objective: to transform society through research.

The IDIS also looks for its place in the national and European research scene. The steady growth of the participation of our teams members in European research projects gives us an international projection. Without forget our scientific outreach, with the publication of almost five hundred items.

Translational research is the present of biomedical research: bringing the lab results closer to the patient with greater immediacy and efficiency, developing new diagnostics or therapeutics methods that benefit the population and give meaning to our job. Our allies in this mission are the medical, pharmaceutical and biotechnology industry. A total of 31 national and international patents over 2014 prove our tireless work of knowledge transfer.

All the achievements reflected in this report, which was born eight years ago with the aim of spreading our activity, can only be reached through teamwork and collaboration between researchers and institutions. The IDIS Direction wants to express its gratitude to both: the Direction Board led by the Consellería de Sanidade - SERGAS and the University of Santiago de Compostela. At the same time we thank the 675 people integrated into our 63 research groups organized in six scientific fields. Together, we appreciate the work of the Internal Committees of IDIS, allowing us to unite the collective interests, and the External Scientific Committee, with its recommendations, always with a critical and constructive spirit that helps us to continue growing.

I encourage everyone to continue working firmly to improve in future editions the data contained in this 2014 Annual Report.

Santiago de Compostela, June 2, 2015

José Castillo Sánchez
Scientific Director

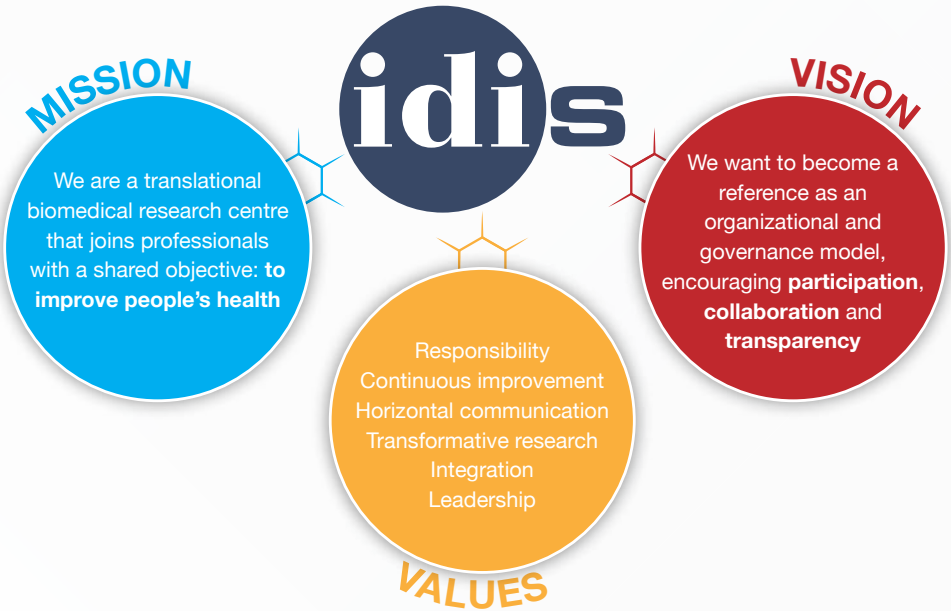
idis

SUMMARY

Executive Summary

01

The Biomedical Research Institute of Santiago de Compostela is a translational research centre for innovation and transfer knowledge that optimizes existing synergies between the Xerencia de Xestión Integrada de Santiago de Compostela and the University of Santiago de Compostela. It is accredited as a medical research centre of the National Health System by the Institute of Health Carlos III.



2014 leading indicators

Global Analysis

02

675 people are integrated in **63** groups organized in **6** research areas: Oncology, **12** groups; Genetics and Systems Biology, **11**; Endocrinology, **14**; Neurosciences, **9**; Platforms and Methodology **8**; and Inflammation, **9**; There is also a support area (technical secretariat and common support platforms for research) with **9** groups.

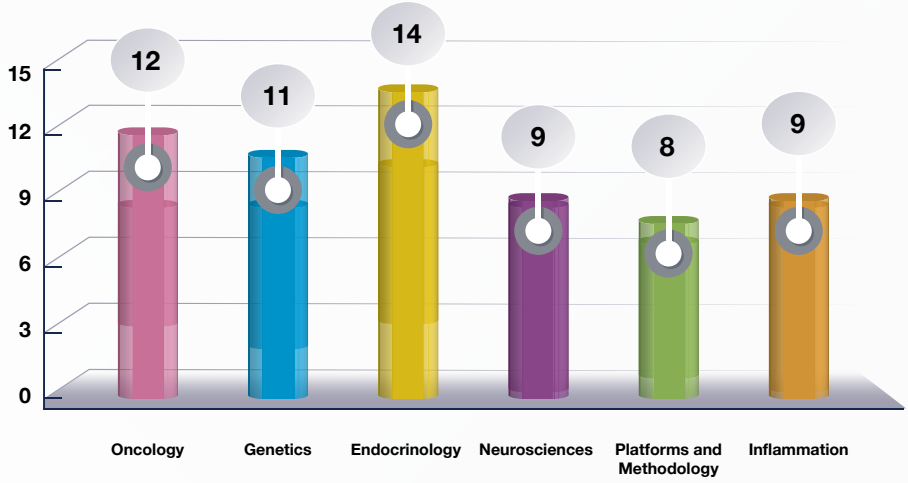


Figure 1. Number of groups per area

These **63** groups are divided into **29** consolidated, **29** emerging and **5** clinical partners. The clinical partners are integrated in the areas of Oncology, Endocrinology, Neurosciences and Inflammation. In 2014 **3** groups were consolidated.

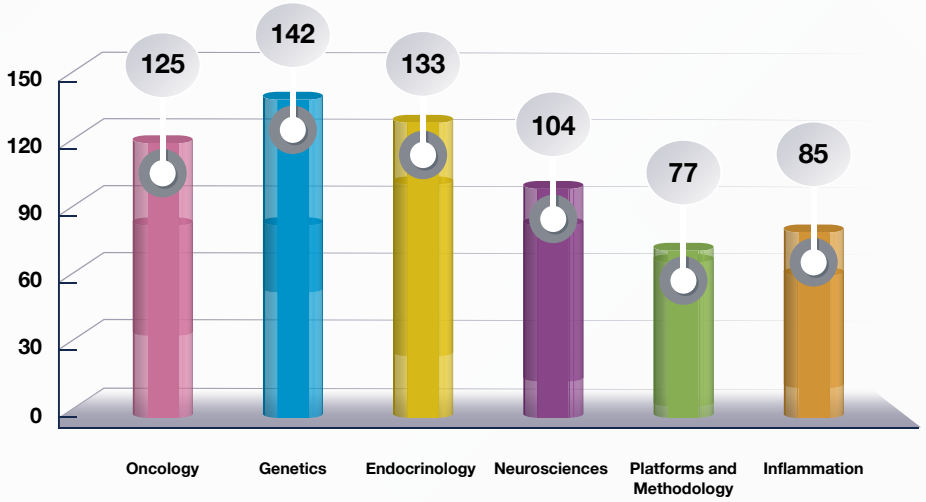


Figure 2. Number of researchers per area

The Institute has published **489** original scientific articles, editorials and reviews in **285** international journals indexed in the Journal Citation Report with an cumulative impact factor of **2.190** points and an average impact factor of **4,48** points.

An increase of the number of articles published: 455 in 2013 and 489 in 2014, a remarkable duplication of its number since the establishment of the Institute.

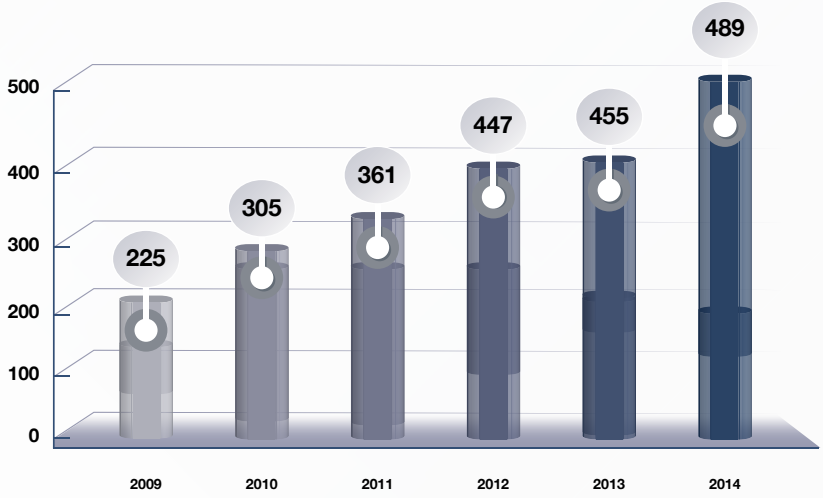


Figure 3. Number of published articles each year

The upward trend of the cumulative impact factor is maintained and it moves from 928,46 in 2009 to 2.190 in 2014.

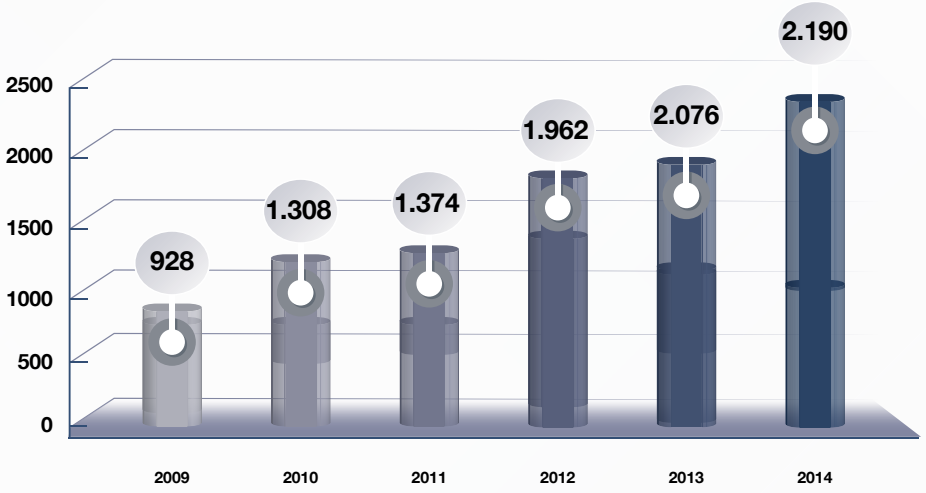


Figure 4. Cumulative impact factor

The average impact factor in 2014 was 4,48 points.

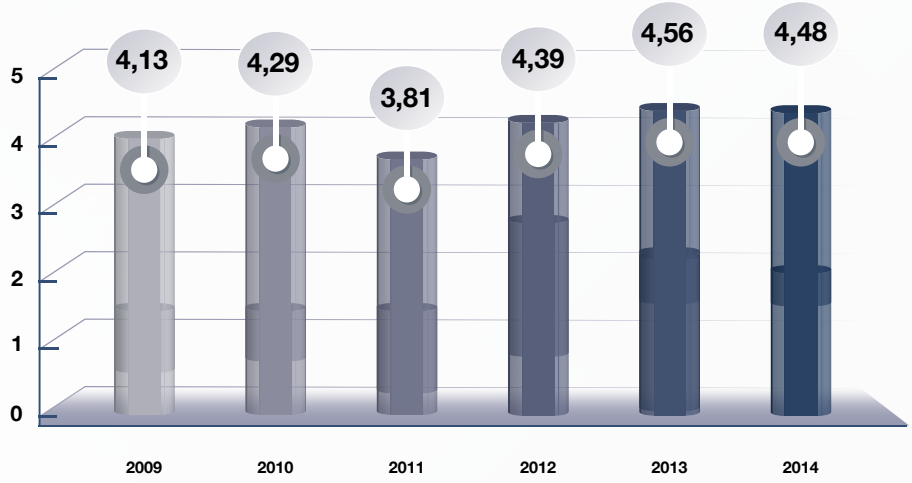


Figure 5. Average impact factor

A remarkable increase in the first decile for the same period from 57 articles published in 2009 to 117 in 2014.

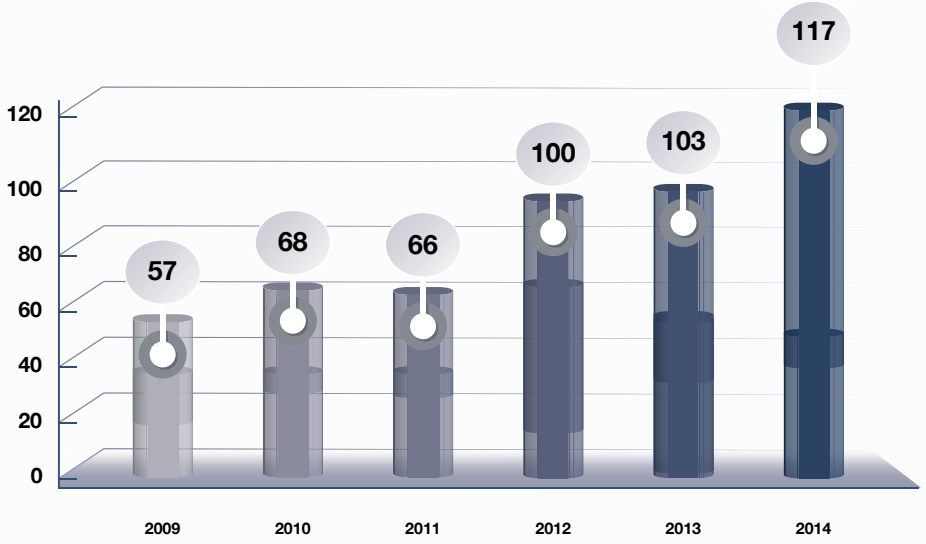


Figure 6. Number of published articles in the first decile

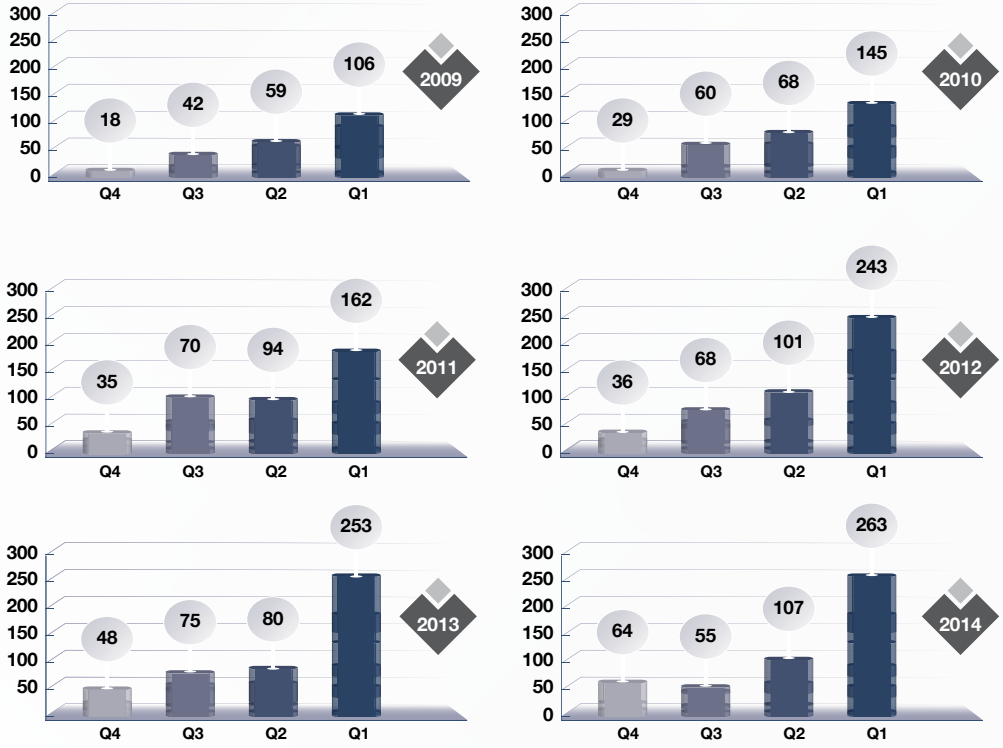


Figure 7. Number of articles by year published in each quartile

The number of articles per quartile increases gradually during the period of 2009-2014 almost in every quartile and every year.

Taking into account the relevance of the authors in the articles signature, we identify those in which the first or the last author is assigned to an IDIS group. We define them as **articles of our own**.

In 2014, from a total of 489 articles, 240 were **published by us** (49%). From the 117 of the first decile, D1, 42 are of **our own**.

	D1	Q1	Q2	Q3	Q4
Total	117	263	107	55	64
%	23,9	53,7	21,8	11,2	13,1
Σ					489
Owns	42	116	58	32	34
%	17,5	48,3	24,4	13,3	14,2
Σ					240

Table 1. Number and % of the total number of publications and articles in 2014

In 2014, 14,5% of the work were carried out by teams in which members of more than one IDIS group were involved. 35,3% were done in collaboration with researchers from centres outside of Spain.

PARTNERSHIPS	N	%
IDIS	71	14,5
INTERNATIONAL	173	35,3

Table 2. Number and % of articles published in collaboration between the IDIS groups and the groups of the centres outside of Spain.

During 2014, the funds raised in competitive calls for research projects, the recruitment of staff, agreements, contracts and provision of services, donations, clinical trials and observational studies generated **18.705.130 €** which will complement the resources of the institutions that take part in IDIS.

CONCEPT	N	TOTAL
Projects		
International	3	269,500 €
National	37	3.786.772 €
Regional	17	3.369.403 €
Subtotal	57	7.425.675 €
Human resources		1.141.506 €
Infrastructures		2.290.278 €
Donations		826.578 €
Contracts, provision of services and agreements		4.426.286 €
Studies (clinical trials, CT, observational studies, OS)		2.594.807 €

Table 3. Summary of the funds raised in 2014

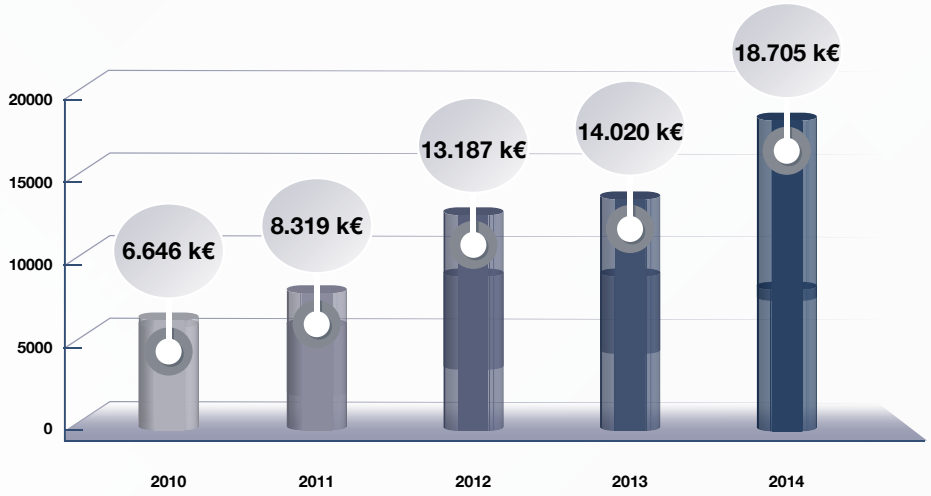


Figure 8. Amounts raised

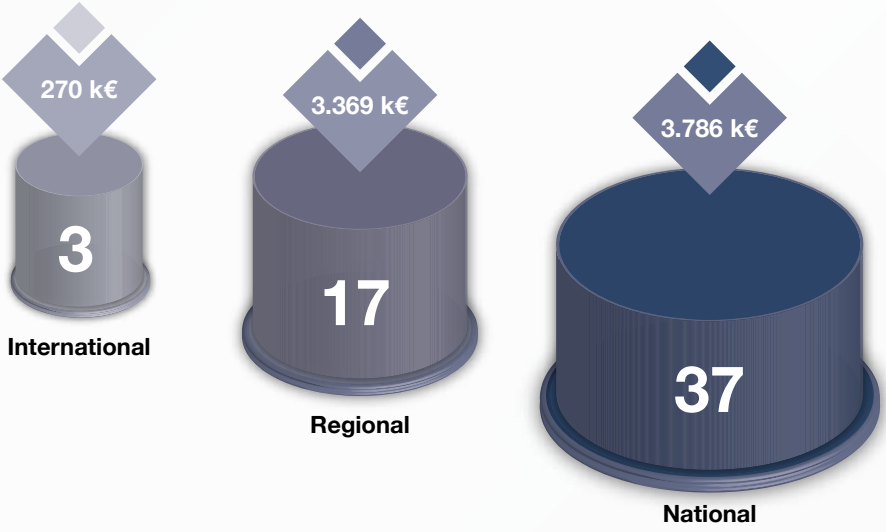


Figure 9. Number and amount of funds raised in 2014 for projects by location

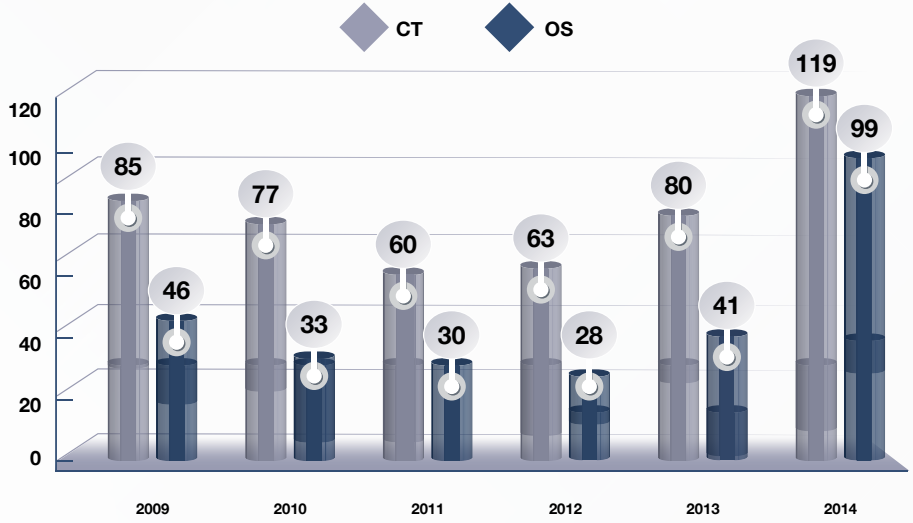


Figure 10. Number of Clinical Trials and Observational Studies

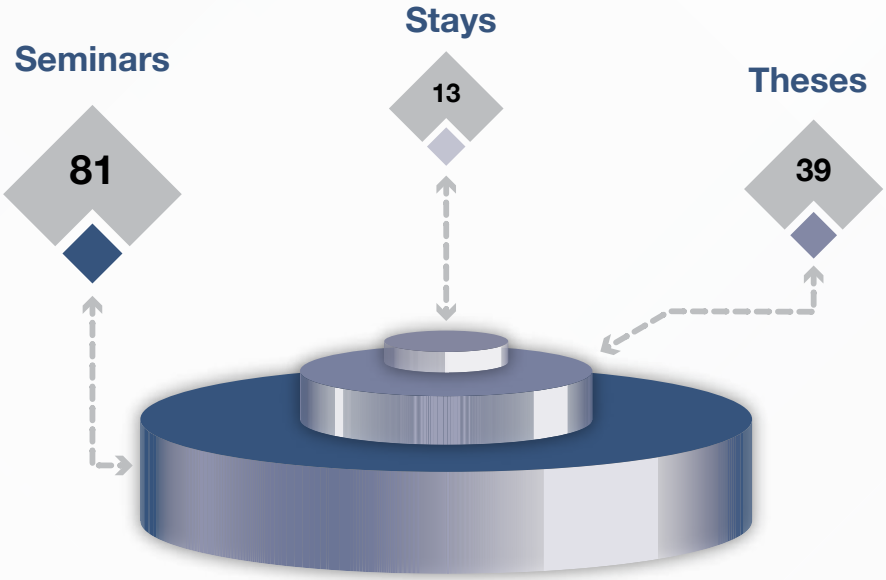


Figure 11. Training activities in 2014

2014 Achievements

03

Call and resolution of the **IDIS IV Pre-doctoral Grants Programme** for the integration of research staff in the training process in order to develop their doctoral theses guided by the Institute's researchers.

Participation of the IDIS community in the elaboration of the necessary documentation to compete to the **renovation of the accreditation** as Accredited Health Research Institute.

Creation of three Technology Based Companies (TBC) as a result of transfer activity: Dart, NasasBiotech and Qubiotech Health Intelligence.

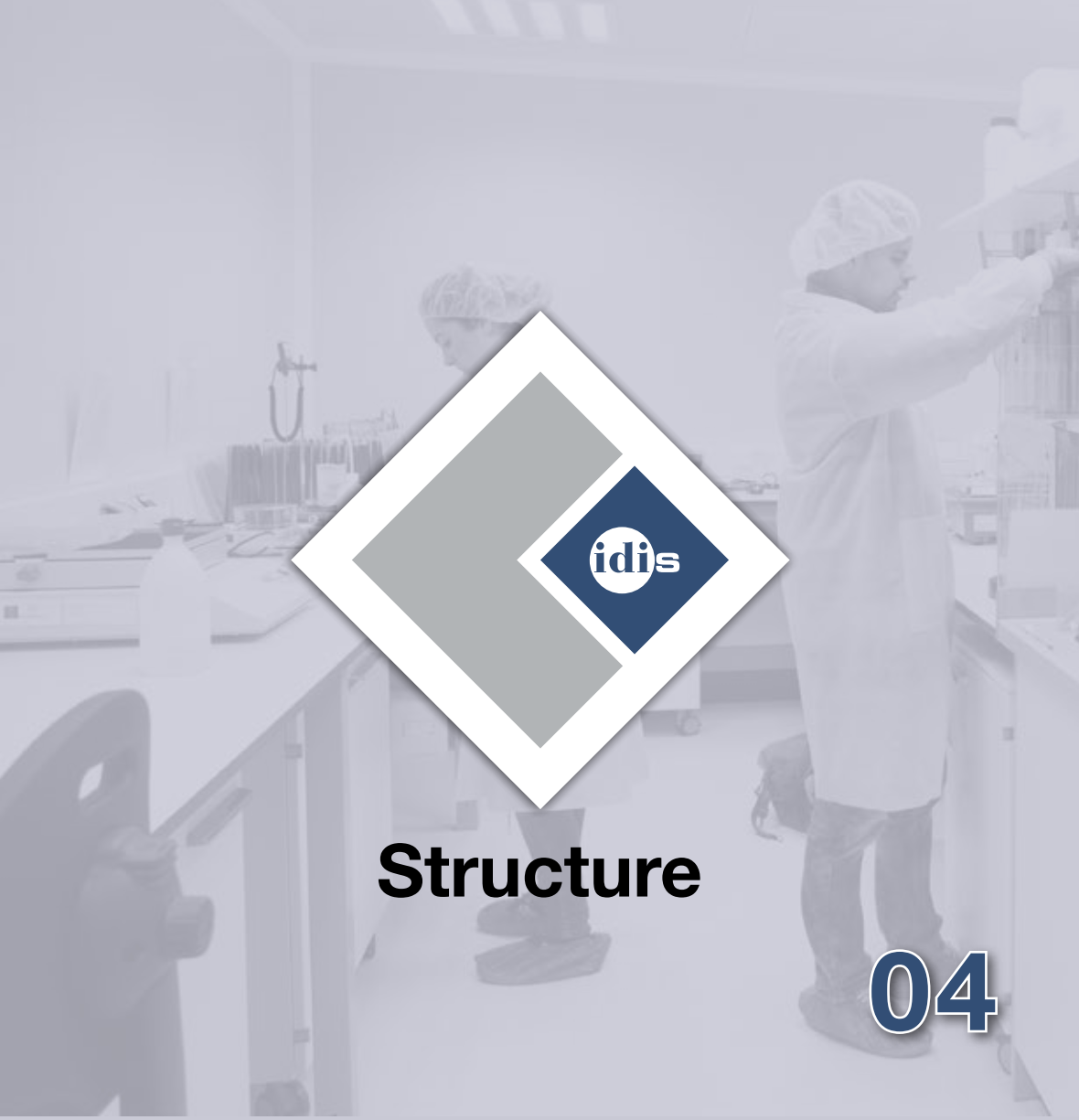
New structure for the research of areas of the institute. Renaming of the Epidemiology area: Platforms and Methodology and incorporation of a largest number of groups to this new area.

Consolidation of three emergent groups, belonging to the areas of Inflammation and Endocrinology: Neuroendocrine Interactions in Rheumatic and Inflammatory Diseases (Oreste Gualillo), Genetics of Osteoarticular Disorders (Antonio Gonzalez Martínez-Pedrayo) and Neurobesity (Miguel Antonio López Pérez).

Approval, by the Direction Board of the institute, and implementation of the new **Strategic Plan 2014-2017**.

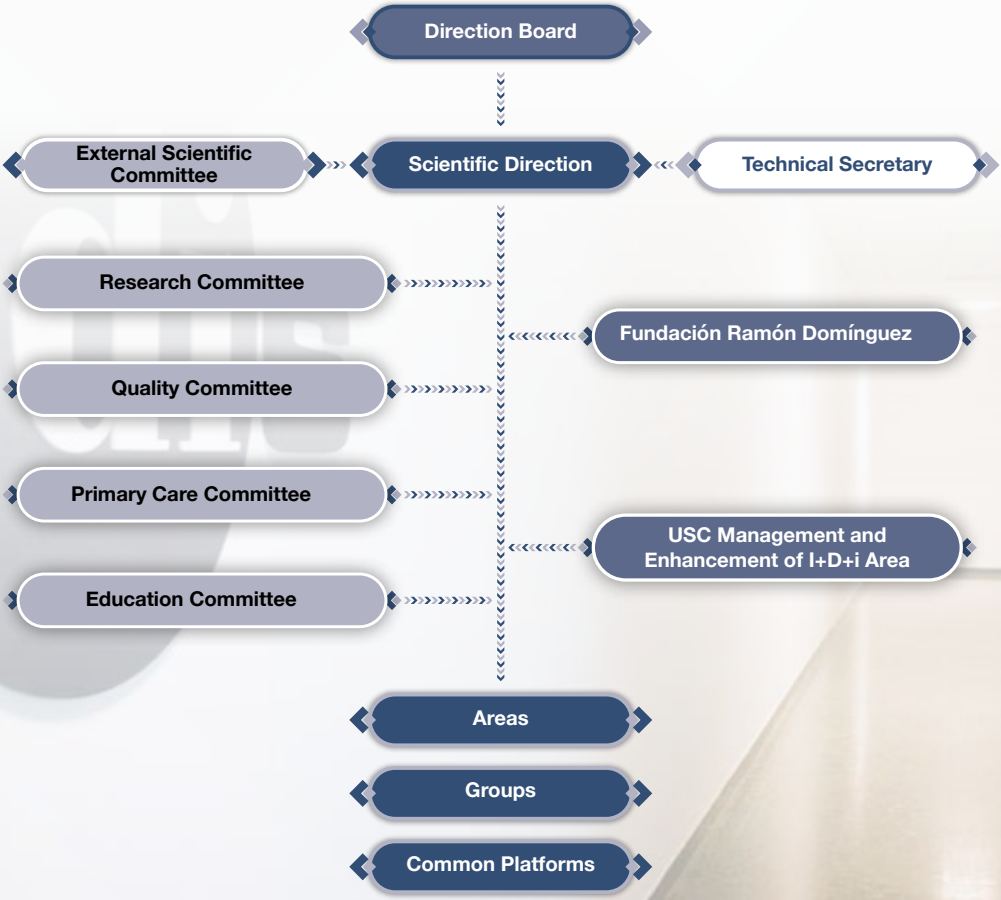
Implementation of the Evaluation of the Research Groups Performance during the period of 2011-2013.

Funding for five research projects of four different groups (Neurology, Medical and Translational Oncology, Cellular Endocrinology and Genetics and Developmental Biology of Kidney Diseases) in the frame of the **Valorization Program of the Galician Public Healthcare Provider.**



Structure

04


Direction Board
External Scientific Committee
Scientific Direction
Technical Secretary
Research Committee
Fundación Ramón Domínguez
Quality Committee
Primary Care Committee
USC Management and Enhancement of I+D+i Area
Education Committee
Areas
Groups
Common Platforms

Government Bodies

President

Rocío Mosquera Álvarez

Vice-president

Juan Manuel Viaño Rey

Chairs

Juan Jesús Gestal Otero

José Ramón González Juanatey

Luis Lima Rodríguez

Javier Paz Esquete

Isabel Rodríguez-Moldes Rey

Luis Verde Remeseiro

María Gómez-Reino Garrido (without vote)

José Castillo Sánchez (without vote)

Scientific Direction

José Castillo Sánchez

Advisory Bodies

External Scientific Committee

Ángeles Almeida Parra
Melchor Álvarez de Mon Soto
María del Carmen Ayuso García
Joan Xavier Comella Carnicé
Xosé García Bustelo
Joan Rodés Teixidor

Research Committee

President

José Ramón González Juanatey

Members

Clara Álvarez Villamarín
José Castillo Sánchez
Javier Costas Costas
José Antonio Costoya Puente
Carlos Diéguez González
Adolfo Figueiras Guzmán
Miguel Ángel García González
Arturo González Quintela
Miguel Antonio López Pérez
María Gómez-Reino Garrido
Federico Martinón Torres
María Pardo Pérez
Jesús Rodríguez Requena
Anxo Vidal Figueroa

Advisory Bodies

Quality Committee

President

Isabel Lista García

Members

Manuela Alonso Sampedro
Miguel Ángel Caínzos Fernández
Pilar Gayoso Diz
Carmen Ruth González Diéguez
Michel Herranz Carnero
Ana Mosquera Miguel
Jesús Rodríguez Requena
Mar Vázquez Salgado

Education Committee

President

María Jesús Sobrido Gómez

Members

Miguel Ángel García González
Miguel Gelabert González
Juan Jesús Gestal Otero
Arturo González Quintela
Francisco Gude Sampedro
Rosaura Leis Trabazo
Montserrat Nogueira Álvarez
Álvaro Ruibal Morell
Juan Bautista Zalvide Torrente

Advisory Bodies

Primary Care Committee

Members

Carlos Calvo Gómez

Montserrat Camiña Tato

María del Carmen Fernández Merino

José Ramón González-Juanatey

Manuel Lado López

Benito José Regueiro García

Jesús Rey García

Jesús Sueiro Justel

President

Carmen Vidal Pan

Technical Secretary

Isabel Lista García

Yolanda Liste Martínez

Ricardo Julio Rodríguez Fernández

Areas And Groups

ONCOLOGY

A001

Coordinator:
Tomás García-Caballero Parada

C010	Genetics of Human Diseases	Fernando Domínguez Puente
C011	Pathology	José Ramón Antúnez López
C025	NANOBIOFAR	María José Alonso Fernández
E004	Molecular Oncology	José Antonio Costoya Puente
E010	Medical and Translational Oncology	Rafael López López
E018	Cell Cycle and Oncology (CiClon)	Anxo Vidal Figueroa
E028	Stem Cells in Cancer and Aging	Manuel Collado Rodríguez
E031	Oncologic Endocrinology	Román Pérez Fernández
E032	Preclinical Animal Models	Laura Sánchez Piñón
E033	Viruses and Cancer	Carmen Rivas Vázquez
AC01	Lymphoproliferative Disorders	José Luis Bello López
AC02	Molecular Imaging	Álvaro Ruibal Morell

GENETICS AND SYSTEMS BIOLOGY

A002

Coordinator:
Ángel Carracedo Álvarez

C005	Genetics	Ángel Carracedo Álvarez
C009	Digestive Pathology	Juan Enrique Domínguez Muñoz
C020	Genetics, Vaccines, Infections and Paediatrics (GENVIP)	José María Martinón Sánchez
E001	Genetics of Cardiovascular and Eye Diseases	María José Brión Martínez
E012	Comparative Genomics of Human Parasites	Julio Manuel Maside Rodríguez
E015	Population Genetics in Biomedicine (GenPoB)	Antonio Salas Ellacuriaga
E016	Genetics of Neurological Disorders	María Jesús Sobrido Gómez
E017	Cancer Genetics	Ana Paula Vega Gliemmo
E020	Psychiatric Genetics	Javier Costas Costas
E021	Genetics and Developmental Biology of Kidney Diseases	Miguel Ángel García González
E027	Escherichia coli	Jorge Blanco Álvarez

ENDOCRINOLOGY

A003

Coordinator:
Felipe Casanueva Freijo

C001	Neoplasia and Endocrine Differentiation	Clara Álvarez Villamarín
C006	Molecular Endocrinology	Felipe Casanueva Freijo
C008	Obesity and Nutrition	Carlos Diéguez González
C012	Metabolic Disorders	María Luz Couce Pico
C019	Thyroid and Metabolic Disorders Unit (UETeM)	David Araújo Vilar
C022	Paediatric Nutrition	María Rosaura Leis Trabazo
C029	Neurobesity	Miguel Antonio López Pérez
E006	Cytokines and Obesity (Citobes)	Mª del Carmen García García
E022	Molecular Metabolism	Rubén Nogueiras Pozo
E023	Obesidomics	María Pardo Pérez
E024	Structural Biochemistry of Endocrine Pathology	Yolanda Pazos Randulfe
E025	Cellular Endocrinology	Jesús Pérez Camiña
E026	Endocrine Physiopathology	Luisa María Seoane Camino
AC04	Paediatric Endocrinology	Manuel Pombo Arias

NEUROSCIENCES

A004

Coordinator:
José Castillo Sánchez

C004	Neurobiology	Antonio Canedo Lamas
C007	Neurology	José Castillo Sánchez
C015	Neurobiology of the Visual System	Francisco González García
C018	Experimental Neurology of Parkinson's Disease	José Luis Labandeira García
C026	BIOFARMA	María Isabel Loza García
E014	Prion Diseases	Jesús Rodríguez Requena
E019	Cell Stress	Juan Bautista Zalvide Torrente
E029	Cognitive Neuroscience	Fernando Díaz Fernández
AC03	Critical Patient	Julián Álvarez Escudero

PLATFORMS AND METHODOLOGY

A005

Coordinator:
Juan Jesús Gestal Otero

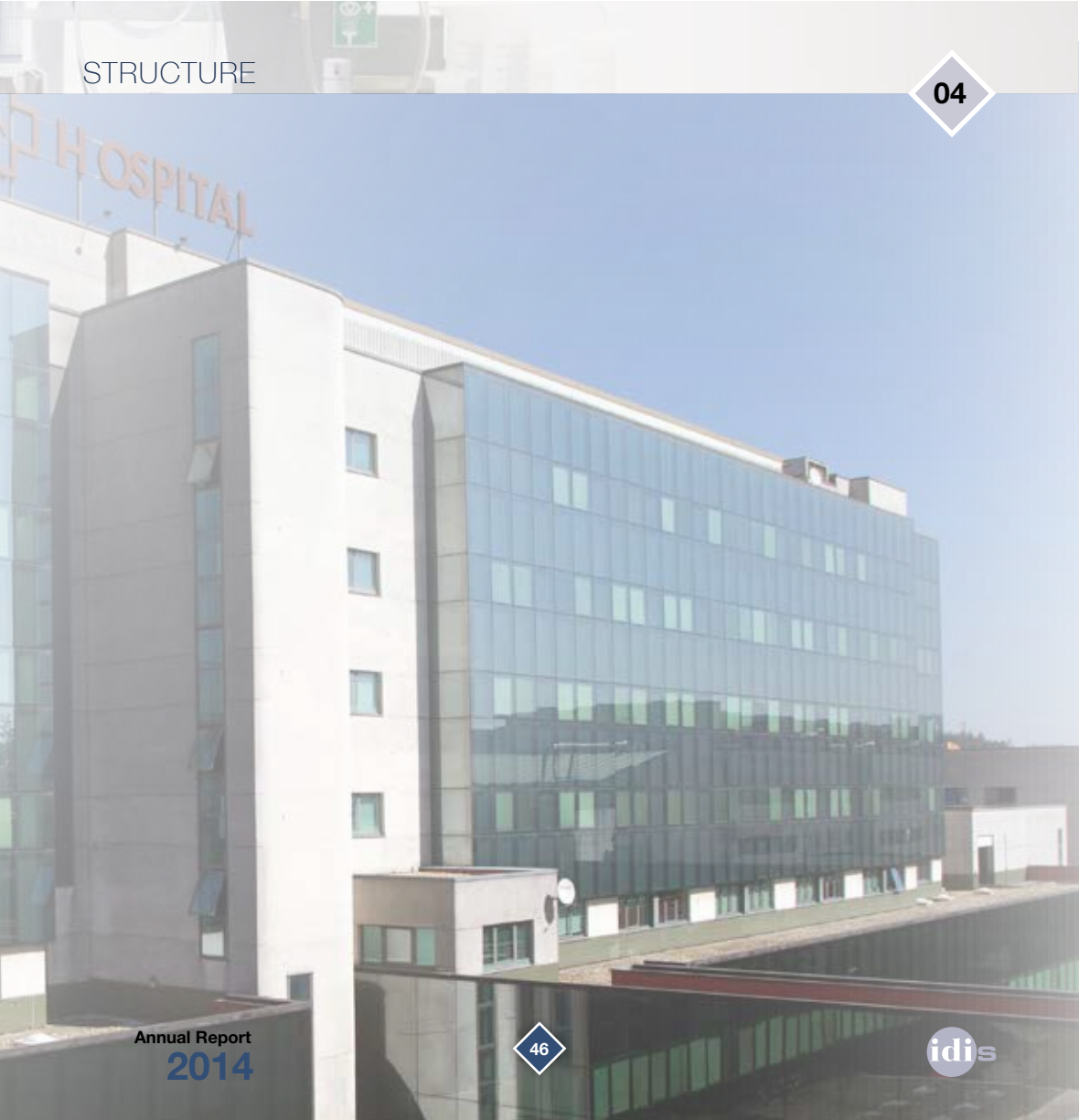
C002	Experimental Surgery	Miguel Ángel Caínzos Fernández
C013	Epidemiology, Public Health and Evaluation of Health Services	Juan Jesús Gestal Otero
C017	Research Methodology	Francisco Gude Sampedro
C021	Clinical Analysis	Santiago Rodríguez-Segade Villamarín
C024	Radiology	Miguel Souto Bayarri
E002	Biostatistics	Carmen María Cadarso Suárez
E013	Microbiology	Benito José Regueiro García
E034	Clinical Pharmacology	María Jesús Lamas Díaz

INFLAMMATION

A006

Coordinator:
José Ramón González Juanatey

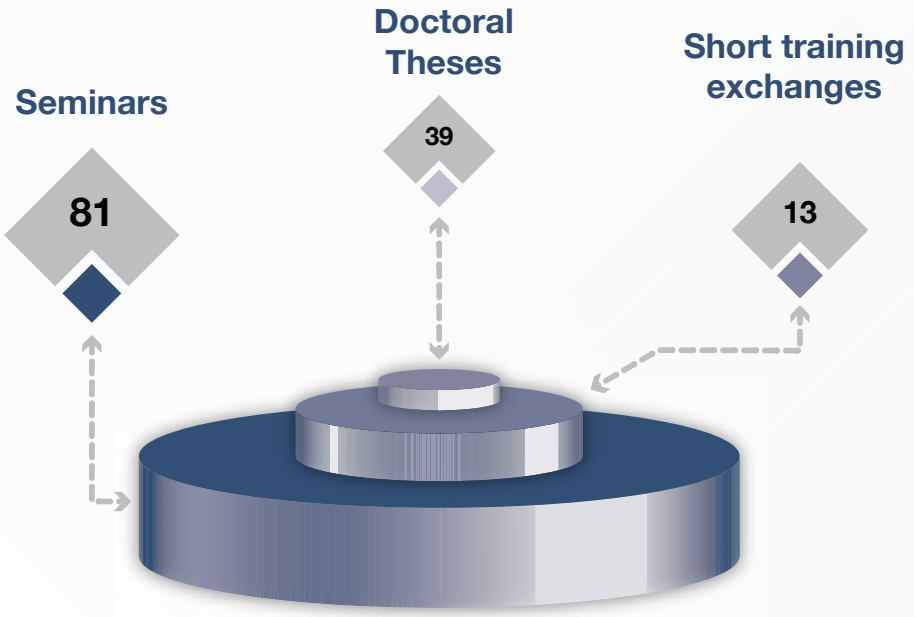
C003	Hypertension	Carlos Calvo Gómez
C014	Rheumatology	Juan Jesús Gómez-Reino Carnota
C016	Cardiology	José Ramón González Juanatey
C027	Neuroendocrine Interactions in Rheumatic and Inflammatory Diseases (Neirid)	Oreste Gualillo
C028	Genetics of Osteoarticular Disorders	Antonio González-Martínez Pedrayo
E003	Experimental Rheumatology	Carmen Conde Muro
E009	Cellular and Molecular Cardiology	Francisca Lago Paz
E030	Platelet Proteomics	Ángel García Alonso
AC05	Neumology	Luis Guillermo Valdés Cuadrado

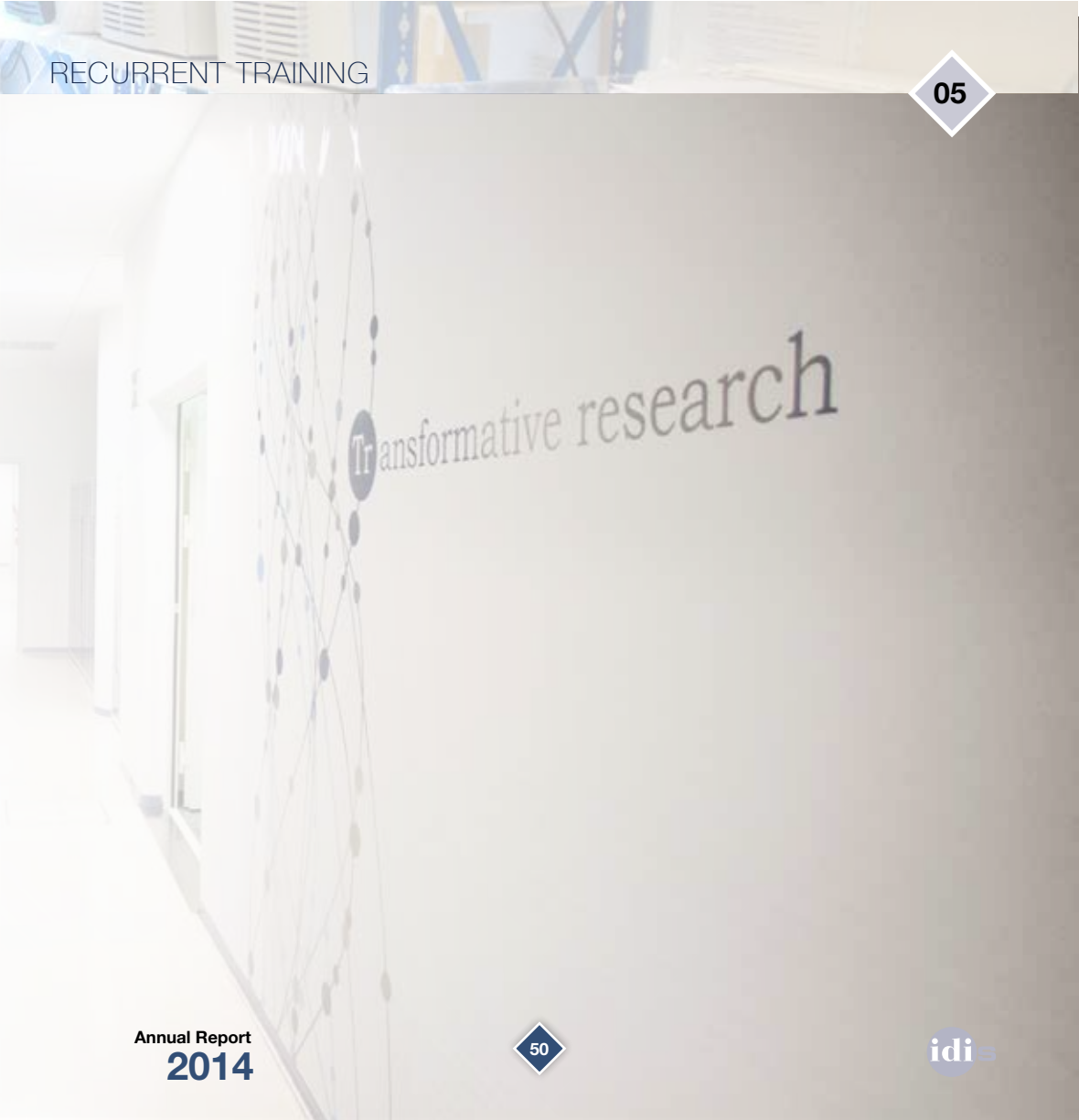

HOSPITAL

Recurrent Training

05

In 2014, **81 seminars were organized**, **39 doctoral theses** were directed by IDIS' researchers and **13 short training exchanges** were organized in collaboration with the Medicina Intercambios Galicia Association (ME.I.GA.), member of the International Federation of Medical Students' Associations (IMFSA).




Transformative research

Innovation and Transfer

06

The main initiatives of technology transfer during 2014 are the following:

The establishment of the **KICGallaecia** association consolidated the participation of Galicia as a full partner of the international initiative **LifeKIC**. This project aimed for the call of the **European Institute of Innovation and Technology** to create a new **Knowledge and Innovation Community** on active and healthy aging.

Creation of three technology-based companies as a result of transfer activity:

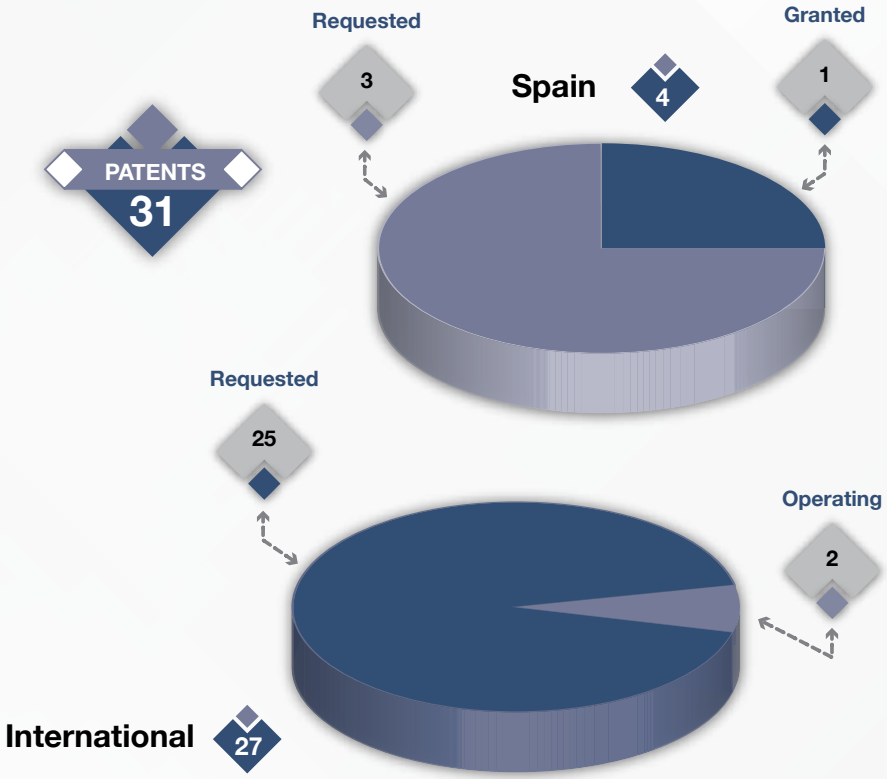
DART (Detection and Radiation Technologies). Company committed to provide dosimetric solutions for the state of the art treatment delivery techniques. DART products are the result of a deep know-how in dosimetry and radiation detection technologies, providing solutions to dosimetry problems.

NASASBIOTECH. Company whose main objective is the introduction of a medical device into clinical practice: MTRAP is intended to capture metastatic tumor cells in Stage III ovarian cancer patients presenting with peritoneal carcinomatosis.

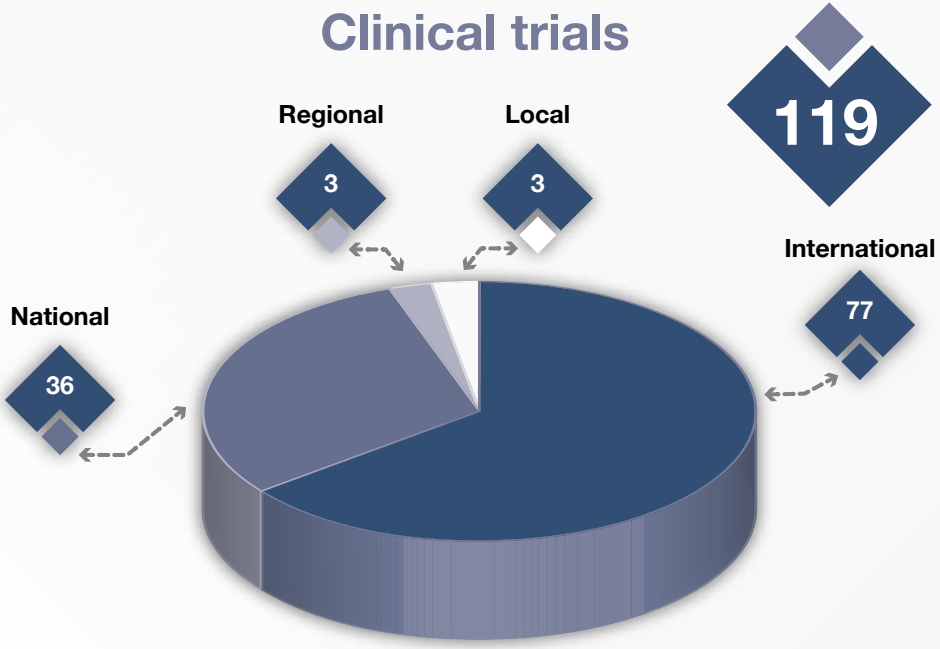
QUBIOTECH HEALTH INTELLIGENCE. Company whose main product is a multimodal analysis image software to analyse PET and NMR images, joining quantitative and statistical information.

Promotion of the protection of research results through **national and international patents**.

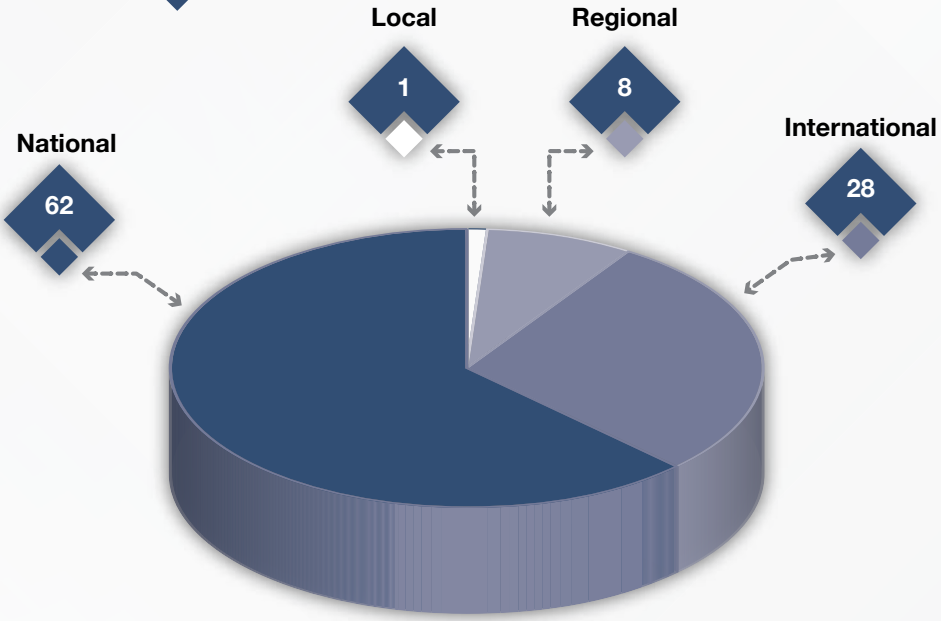
Following are our transfer knowledge indicators for 2014: **31 patents** registered, 4 of them national (1 granted and 3 requested) and 27 international (2 operating and 25 requested).



Clinical Trials and Observational Studies were as follow: during the past year 2014, IDIS recorded a total of **119 clinical trials** (36 national, 77 international, 3 regional and 3 local) and **99 observational studies** (62 national, 28 international, 8 regional and 1 local).



99 Observational studies



Platforms

07

PROTEOMICS

The proteomics platform was created to enhance, give support and offer a complete infrastructure in the field of proteomics to the Institute's researchers and other public and private bodies. It is equipped with the latest generation technology that allows the development of both studies of characterisation of complete proteomes as well as studies of analysis of differential expression.

Contact

Susana Belén Bravo López

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LIQUID BIOPSY UNIT

The service for the analysis of circulating cells works with the CellSearchTM system (Veridex) that allows, through the use of immunomagnetic techniques of enrichment and identification by immunofluorescence, isolate and quantify present cells in peripheral blood. Its main application is aimed to the detailed analysis of circulating tumor cells (CTC), even though the computer also allows identify other kind of cells such as endothelial. In addition, the platform has the capacity to carry out studies with circulating DNA.

Contact

Laura Muinelo Romay

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CONFOCAL MICROSCOPY

The confocal microscopy service includes an infrastructure and specialized staff to do fluorescence or confocal microscopy analysis.

Contact

Marta Picado Barreiro

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FLOW CITOMETRY

It is a technique of cells analysis that allows one to measure the characteristics of light scattering and fluorescence that cells have when they pass through a ray of light. This platform's main aims are:

- To advise users of the IDIS on the principles and applications of flow cytometry analysis and cell sorting.
- To develop, optimize and perform new analytic applications demanded by the users of the IDIS.
- To do cellular isolation through cell sorting.
- Quantify different soluble cytokines using multiplex tests.

Contact

Tomás Sobrino Moreiras

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MAGNETIC RESONANCE IMAGING

Magnetic Resonance Imaging is perhaps the most versatile neuroimaging technique that exists today. The use of this platform in its different variants (anatomical, functional, spectroscopy and molecular imaging) allows one to perform a complete follow-up, non-invasive (in vivo) and longitudinal in time of the process associated with neurovascular diseases and other such as plasticity, reorganization and functional recovery in animal models.

Contact

Ramón Iglesias Rey

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BIOBANK

It is a store of biological samples associated with clinical information, which are collected, processed and handled with quality and excellence criteria. The objective is to implement them, in a non-profit way, to serve the medical community in order to promote biomedical research. Biobanks can be directly aimed at diseases (e.g., Bank of Tumours) or at population and epidemiological outbreaks. Biobanks are essential tools to make biomedical research easier. That is why they are so relevant and also for the increasing demand of the highest quality biological samples in order to develop research processes.

The specific aims of Santiago's Biobank are:

- To increase the quantity and quality of the samples available to the scientific community.
- To manage the specific collections linked to projects and research groups that increase the added value of the Biobank.
- To serve as support and advice platform for researchers who work on projects that require collecting human samples.
- To promote the intrahospital integration and the central management of the CHUS' samples collections.
- To integrate the Biobank as support platform for the IDIS' researchers.
- To unify standard operating procedures and policies for quality assurance applicable to all collections managed by the Biobank.

Contact

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Competitive Fundraising

08

During 2014, **18.705.130 €** were raised in the following concepts: projects, human resources, infrastructures, donations, contracts, provision of services, agreements and studies.

CONCEPT	N	TOTAL
Projects		
International	3	269,500 €
National	37	3.786.772 €
Regional	17	3.369.403 €
Subtotal	57	7.425.675 €
Human resources		1.141.506 €
Infrastructures		2.290.278 €
Donations		826.578 €
Contracts, provision of services and agreements		4.426.286 €
Studies (clinical trials, CT, observational studies, OS)		2.594.807 €
Total		18.705.130 €

Table 4. Summary of the funds raised in 2014

Research projects

	NUMBER	TOTAL
International	3	269.500 €
National	37	3.786.772 €
Regional	17	3.369.403 €
Total	57	7.425.675 €

Table 5. Funds raised in research projects in 2014

Human resources

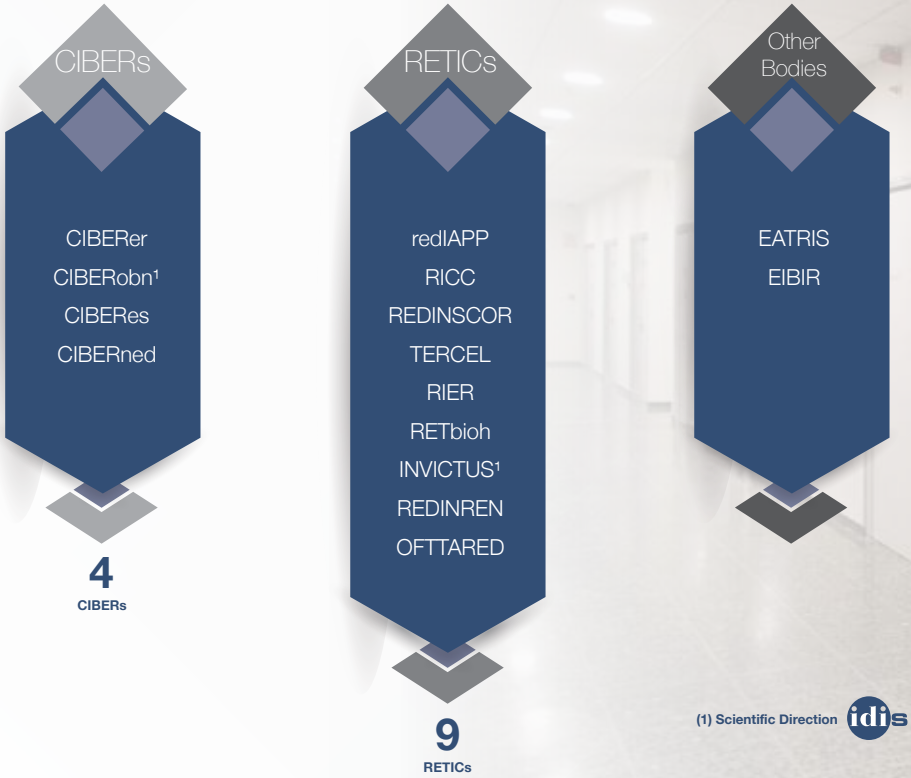
CALL	NUMBER	TOTAL
Research intensification	3	90.000 €
Miguel Servet	2	445.500 €
Postdoctoral contracts	3	268.794 €
Predoctoral contracts	2	132.214 €
i-PFIS contracts	1	88.400 €
Research management contracts	1	80.598 €
Technical support	1	36.000 €
Total	13	1.141.506 €

Table 6. Funds raised in human resources in 2014

Strategic Alliances

09

In 2014, IDIS participated in different cooperatives and several national networks of excellence:



(1) Scientific Direction


idis
Achegando a investigación en saúde á túa rúa

Areas

- Oncology
- Genetics and Systems Biology
- Endocrinology
- Neurosciences
- Platforms and Methodology
- Inflammation


Milli-Q

A001 Oncology

	n	∑fi	$\overline{fi}$	total
Articles published	96	578	6,02	
Projects	14			1.384.077€
Contracts and Agreements	17			307.855€
Clinical Trials	39			
Patents	22	22 requested		
Theses	12			

Genetics of Human Diseases (C010)

Pathology (C011)

NANOBIOFAR (C025)

Molecular Oncology (E004)

Medical and Translational Oncology (E010)

Cell Cycle and Oncology (CiCIon) (E018)

Stem Cells in Cancer and Aging (E028)

Oncologic Endocrinology (E031)

Preclinical Animal Models (E032)

Viruses and Cancer (E033)

Lymphoproliferative Disorders (AC01)

Molecular Imaging (AC02)

A002 Genetics and Systems Biology

	n	∑fi	$\overline{fi}$	total
Articles published	137	633	4,62	
Projects	8			973.790€
Contracts and Agreements	22			275.813€
Clinical Trials	30			
Theses	9			

Genetics (C005)

Digestive Pathology (C009)

Genetics, Vaccines, Infections and Paediatrics (GENVIP) (C020)

Genetics of Cardiovascular and Eye Diseases (E001)

Comparative Genomics of Human Parasites (E012)

Population Genetics in Biomedicine (GenPoB) (E015)

Genetics of Neurological Disorders (E016)

Cancer Genetics (E017)

Psychiatric Genetics (E020)

Genetics and Developmental Biology of Kidney Diseases (E021)

Escherichia Coli (E027)

A003 Endocrinology

	n	∑fi	$\overline{fi}$	total
Articles published	80	329	4,11	
Projects	7			794.308€
Contracts and Agreements	11			327.014€
Clinical Trials	12			
Patents	6	5 requested / 1 granted		
Theses	3			

Neoplasia and Endocrine Differentiation (C001)

Molecular Endocrinology (C006)

Obesity and Nutrition (C008)

Metabolic Disorders (C012)

Thyroid and Metabolic Disorders Unit (UETeM) (C019)

Pediatric Nutrition (C022)

Neurobesity (C029)

Cytokines and Obesity (Citobes) (E006)

Molecular Metabolism (E022)

Obesidomics (E023)

Structural Biochemistry of Endocrine Pathology (E024)

Cellular Endocrinology (E025)

Endocrine Physiopathology (E026)

Paediatric Endocrinology (AC04)

A004 Neurosciences

	n	∑fi	$\overline{fi}$	total
Articles published	62	206	3,33	
Projects	13			2.696.339€
Contracts and Agreements	10			1.667.895€
Clinical Trials	4			
Patents	6	4 requested / 2 operating		
Theses	3			

Neurobiology (C004)

Neurology (C007)

Neurobiology of the Visual System (C015)

Experimental Neurology of Parkinson's Disease (C018)

BIOFARMA (C026)

Prion Diseases (E014)

Cell Stress (E019)

Cognitive Neuroscience (E029)

Critical Patient (AC03)

A005 Platforms and Methodology

	n	∑fi	$\overline{fi}$	total
Articles published	93	312	3,36	
Projects	6			574.268€
Contracts and Agreements	3			50.012€
Clinical Trials	3			
Theses	10			

Experimental Surgery (C002)

Epidemiology, Public Health and Evaluation of Health Services (C013)

Research Methodology (C017)

Clinical Analysis (C021)

Radiology (C024)

Biostatistics (E002)

Microbiology (E013)

Clinical Pharmacology (E034)

A006 Inflammation

	n	∑fi	$\overline{fi}$	total
Articles published	82	376	4,58	
Projects	8			818.579€
Contracts and Agreements	7			152.269€
Clinical Trials	41			
Theses	5			

Hypertension (C003)

Rheumatology (C014)

Cardiology (C016)

Neuroendocrine Interactions in Rheumatic and Inflammatory Diseases (Neirid) (C027)

Genetics of Osteoarticular Disorders (C028)

Experimental Rheumatology (E003)

Cellular and Molecular Cardiology (E009)

Platelet Proteomics (E030)

Neumology (AC05)

Annual Report
2014

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UNIVERSIDADE DE SANTIAGO DE COMPOSTELA

SERVIZO GALEGO de SAÚDE