

2017-2020 STRATEGIC PLAN

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PRESENTATION LETTER

This 2017-2020 Strategic Plan is the main instrument for the lines of action that will drive IRBLIeida in the coming years. It is not a ground-breaking plan, but one that promotes the areas of excellence that give us uniqueness and that can position ourselves competitively in the Catalan, national and international research environment.

We are a Health Research Institute that covers two interrelated areas: healthcare and teaching (University of Lleida). A large proportion of researchers belong to both areas. Therefore, the cohesion and integration of researchers with objectives and transversal projects is essential. The sustainability of our institute obliges us to reorganize resources and add scientific production to position ourselves with our own identity in the research and innovation ecosystem.

We in charge of institutions have a responsibility to promote this integrated approach. We must take advantage of the physical closeness of the structures for healthcare, teaching and research in our city to encourage cohesion.

Our commitment to society is to provide ethical value and that we gain visibility as an instrument of progress and innovation. We have the desire to drive growth in the area of Lleida and help promote a society based on values. Reciprocity is essential in the relationship with citizens and the institutions that govern us. To fulfil this priority objective we will set up a forum for opinion and debate where institutions, citizens, patient associations and industrial sectors share the objectives of IRBLIeida to meet the needs and expectations of the scientific community, patients and citizens.

The preparation of this plan is the result of the thinking shared by a large number of professionals at our institute, other UdL institutes and research managers in Catalonia and Spain. All have contributed their vision to chart the way IRBLIeida must follow in the coming years, taking into account socio-economic context and current science.

I am confident that this plan will work because all people of all walks of life involved in IRBLIeida feel that it is the roadmap that we must travel with effort and excitement.



Elvira Fernández Director of IRBLleida



1.EXECUTIVE SUMMARY

For the preparation of this Strategic Plan a very participatory methodology was followed: personal interviews were conducted with key regulatory agencies and agents, in order to hear their opinions and recommendations;

- Ad Hoc Committee of Senior Researchers
- Ad Hoc Committee of Young Researchers
- Internal Scientific Committee CCI
- External Scientific Committee CCE
- Managers and/or researchers
- Catalan and Spanish research managers

With the Internal Scientific Committee and the Management Team, workshops have been conducted to define the mission, vision and values of IRBLleida; set targets and identify the main lines of the 2017-2020 Strategic Plan.

With all this, we have identified seven areas of action:

- Research
- Internationalization and business development
- Transfer and innovation
- People
- Society
- Infrastructure
- Management and organization

And within these 7 lines of action arise 9 strategic goals, 16 operational objectives and 39 actions that will be assessed through indicators of activity and results.

The design and development of this Strategic Plan has been carried out in alignment with major research and health policies at European, Spanish and Catalan levels.



2. MISSION, VISION AND VALUES

2.1 Mission

Generate knowledge par excellence, able to impact the health and quality of life of the population; and do so with a strong international commitment and inclusion of territorial potential.

2.2 Vision

Be a competitive international benchmark in research and innovation in health, demonstrating ethical values and driving sustainability, multidisciplinary work and internal and external cooperation.

2.3 Values

At IRBLIeida we believe that values develop virtues and that deploying them on a daily basis in our environment benefit our environment and society in general. Our expertise focuses on the following values:

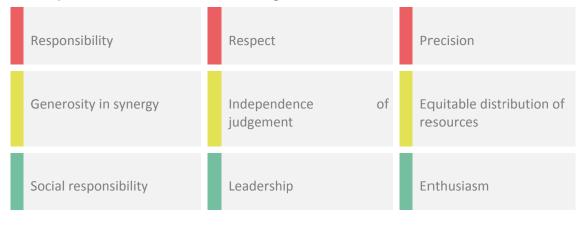


Figure 1: IRBLleida values

The four guiding principles that guide the strategies and actions of IRBLleida are as follows:

- Sustainability
- Ethical and social commitment
- **Research par Excellence** and innovation
- Multidisciplinary and multi-institutional

These four guiding principles allow us to create the word SEREM, which will accompany the deployment of this strategic plan.

SEREM conveys the principles, values and strategy of IRBLleida and integrates the strategic and operational objectives of the plan.

2.4 Summary of the Strategic Plan

We want the Strategic Plan to be a tool to guide the daily activities of all IRBLleida personnel, therefore want to make it intuitive, accessible and ubiquitous. The following chart shows the essence of our Strategic Plan.



Figure 2: Summary of the IRBLleida Strategic Plan

2.5 Strategic and operational objectives

The Strategic Plan is organized into seven areas of action:

LINES OF ACTION Image: Selection of: Selection of:

Prioritize 9 strategic objectives:

| SO1. Generate knowledge, especially directed to current health goals compiled in health policies. | SO2. Promote the uniqueness taking advantage of the territory. | SO3. Position itself internationally in unique and excellent areas. |
|---|--|---|
| SO4. Lay the foundations for increasing the movement and transfer of the results to society. | SO5. Create an attractive centre for attracting and retaining talent. | SO6. Encourage training as the focus of professional development. |
| SO7. Increase interaction with society and have it participate in IRBLIeida activities. | SO8. Provide appropriate structures and organization for the development of the centre's activities. | SO9. Professionalize management to ensure the sustainability and social responsibility of the centre. |



Identify 16 operational objectives to meet the strategic objectives:

| 001 | Align the strategy of our biomedical environment with health policies and research and innovation in the European Research Area, Spain, the Department of Health and UdL. | |
|------|---|--|
| 002 | Promote excellence and leadership. | |
| 003 | Establish transversal programmes in "personalized medicine", "clinical studies in health food" and "training and research in porcine models". | |
| 004 | Internationalization, identifying and promoting groups, lines and researchers par excellence with international leadership or the potential to be. | |
| 005 | Increase collaborative scientific production, especially international. | |
| 006 | Increase presence in international forums. | |
| 007 | Enhance the transfer of research results to clinical practice, applying cost- effectiveness analysis and through service contracts, patents, etc. in health. | |
| 800 | Support and promote the creation of spin-offs. | |
| 009 | Position itself as a reference centre in clinical trials in foods for health. | |
| 0010 | Define a Career Plan that facilitates professional development. | |
| 0011 | Enhance training resources and the use of audiovisual tools. | |
| 0012 | Capture the attention and commitment of society. | |
| 0013 | Intensify and structure internal and external communication (international display). | |
| 0014 | Promote access, inclusion and renewal of technological structures, according to the planning of platforms in Catalonia. | |
| 0015 | Achieve economic and financial results to ensure the continuity and growth of the institution. | |
| 0016 | Achieve the highest levels of quality and social responsibility. | |

The achievement of the operational objectives is expected by means of deploying 39 actions. The following table shows the **relationship between strategic objectives, operational objectives, and the actions** that have been proposed to achieve them. In addition, the plan has activity indicators and outcome indicators.

RESEARCH actions:

| | STRATEGIC OBJECTIVES | OPERATIONAL OBJECTIVES | ACTIONS |
|---------------|---|--|---|
| INVESTIGATION | | OO1. Align the strategy of our biomedical environment with health policies and research and innovation in the European | A1. Consolidate the current lines of research, identifying and promoting emerging groups, encouraging synergies with consolidated groups and driving the focus to: 'Ageing, chronicity and fragility' and 'Food for health'. |
| | SO1. Generate knowledge, especially directed to current health goals compiled in health policies. | Research Area, Spain, the Department of Health and UdL. | A2. Define a cooperative research programme between IRBLleida and the actors in the territory (UdL, Agrotecnio, Inspires, Agri-Food Science Park) and in collaboration with European, Spanish and Catalan consortiums and networks. |
| | | | A3. Establish organizational changes in areas and lines of research to stimulate multidisciplinary and multi-institutional collaboration. |
| | | OO2. Promote excellence and leadership. | A4. Obtain/maintain accreditations (ISCIII, CERCA), honours, prizes and quality seals. |
| | OE2. Promote the uniqueness taking | | A5. Build a Big Data support platform to integrate existing and future databases. |
| | | OO3. Establish transversal programmes in "personalized medicine", "clinical studies in | A6. CREBA: development of porcine models for research. |
| | advantage of the territory. | health food" and "training and research in porcine models". | Science Park) and in collaboration with European, Spanish and Catalan consortiums and networks. A3. Establish organizational changes in areas and lines of research to stimulate multidisciplinary and multi-institutional collaboration. A4. Obtain/maintain accreditations (ISCIII, CERCA), honours, prize and quality seals. A5. Build a Big Data support platform to integrate existing and futur databases. |



| | STRATEGIC OBJECTIVES | OPERATIONAL OBJECTIVES | ACTIONS |
|------------------------|--|--|---|
| ALIZATION AND BUSINESS | | OO4. Internationalization, identifying and promoting groups, lines and researchers | ACTIONSA8. Define a detailed programme for internationalization and scientific profitability that makes us attractive to the pharmaceutical industry, Tech Med and national and international collaborations.A9. Evaluate the productivity of research groups with excellence indicators.A10. Establish a researcher secondment policy.A11. Reactivate and strengthen strategic alliances with hospitals, academia and industry. |
| | | leadership of the potential to be. | |
| | | | A10. Establish a researcher secondment policy. |
| | SO3. Position itself internationally in unique | | |
| | and excellent areas. | OO5. Increase collaborative scientific production, especially international. | A12. Lead projects and participate in networks with international influence. |
| | | | A13. Organize briefings to identify new funding opportunities. |
| INTERNATI | | | A14. Support groups in achieving funding by strengthening the projects technical office. |
| | OO6. Increase presence in inte forums. | | A15. Participate in international lobbies. |
| | | • | A16. Organize an international congress on Ageing, Chronicity and Fragility and/or Food for Health. |

INTERNATIONALIZATION AND BUSINESS DEVELOPMENT actions:



INNOVATION AND TRANSFER actions:

| | STRATEGIC OBJECTIVES | OPERATIONAL OBJECTIVES | ACTIONS | |
|-------------------------|--|--|---|---|
| INNOVATION AND TRANSFER | | | | A17. Create a business development unit that integrates knowledge management, innovation management and transfer actions. |
| | | OO7. Enhance the transfer of research results to clinical practice, applying cost- effectiveness analysis and through service contracts, patents, etc. in health. OO8. Support and promote the creation of spin-offs. | A18. Organize <i>ad hoc</i> training sessions on intellectual property and the creation of companies. | |
| | | | A19. Generate innovative culture among healthcare professionals. | |
| | SO4. Lay the foundations for increasing the movement and transfer of | | A20. Define the map of prioritized technological offer. | |
| | the results to society. | | A21. Promote the participation of IRBLleida in biohealth accelerator projects. | |
| | OO9. Position itself as a reference centre A23. Enhance parti | | A22. Define the framework for action on intellectual property and business creation. | |
| | | | A23. Enhance participation in clinical trials (medicines and food), forming part of networks and platforms. | |



PEOPLE actions:

| TLC | STRATEGIC OBJECTIVES | OPERATIONAL OBJECTIVES | ACTIONS | |
|--------|---|---|--|--|
| PEOPLE | SO5. Create an attractive centre for attracting and retaining talent. | OO10. Define a career plan that facilitates professional development. | and management profiles, defining a recruitment plan aligned to acquire funding and follow IRBLIeida recruitment policies. A25. Detail and implement the IRBLIeida professional Career | |
| | | | A26 Design a proactive action plan to identify candidates and encourage them through start-up aid and laboratory space. | |
| | SO6. Encourage training as the focus of | OO11. Enhance training resources and the | A25. Detail and implement the IRBLleida professional Career Plan. A26 Design a proactive action plan to identify candidates and encourage them through start-up aid and laboratory space. A27. Update the Training Plan for scientific and management personnel. | |
| | professional development. | use of audiovisual tools. | | |



SOCIETY actions:

| | STRATEGIC OBJECTIVES | OPERATIONAL OBJECTIVES | ACTIONS |
|---------|--|--|---|
| SOCIETY | | | A29. Design an IRBLleida Science Disclosure Programme. |
| | SO7. Increase interaction with society and have it | OO12. Capture the attention and commitment of society. | A30. Design and organize an IRBLleida Gala for the science involving the social partners. |
| | participate in IRBLIeida activities. | | A31. Establish a social and business lobby with a presence on the board. |
| | | OO13. Intensify and structure internal and external communication (international display). | A31. Establish a social and business lobby with a presence on the board. |



INFRASTRUCTURE and MANAGEMENT and ORGANIZATION actions:

| | STRATEGIC OBJECTIVES | OPERATIONAL OBJECTIVES | ACTIONS |
|--------------------------------|--|--|---|
| INFRASTRUCTURE S | SO8. Provide appropriate structures and organization for the development of the centre's activities. | OO14. Promote access, inclusion and renewal of technological structures according to the planning platforms in Catalonia. | A33. Develop a multi-institutional infrastructure map of Lleida. |
| | | | A34. Develop a regulatory framework for use of the Technical Scientific Services. |
| | | | A35. Create <i>ad hoc</i> official announcements to co-finance strategic projects. |
| MANAGEMENT AND ORGANISATION | | OO15. Achieve economic and financial results to ensure the continuity and growth | A36. Design a plan to raise competitive and non-competitive funding. |
| | SO9. Professionalize | of the institution. | al funding. |
| | management to ensure the sustainability and social responsibility of | | A38. Update the plans for Comprehensive Quality and Gender Equality. |
| | the centre. | OO16. Achieve the highest levels of quality and social responsibility. | A39. Define a corporate social responsibility programme aimed at groups at risk of exclusion in the territory and patient associations. |

3. Priority areas for promoting excellence in the Strategic Plan

The Strategic Plan arises having mind the mission and vision that ultimately reflect a commitment to Excellence in Research, Excellence in Human Resources and Management Excellence. These three areas concentrate the essence of the plan that is displayed in the actions that are shown below.

3.1 Excellence in research

We plan on addressing excellence in research by strengthening existing lines of research through collaboration and the internal reorganization of groups, addressing new areas of knowledge and talent attraction, by means of:

- The redefinition and arrangement of the areas of research, promoting the integration of the emerging groups into consolidated groups (Guidance plan and support of emerging groups).
- The development of joint activities between researchers and IRBLleida research groups, Agrotecnio and Inspires, to enhance the lines of research with the greatest potential in scientific production and international leadership.
- Scientific and technical support for the development of research projects that integrate clinical researchers (doctors and nurses) in the healthcare network in order to accelerate clinical applicability.
- The development of a detailed internationalization programme, promoting IRBLIeida visibility and participation in international projects.
- Continuous evaluation according to quality indicators of the research (see below).

The IRBLIeida scientific area shall be structured and grouped into new areas of research in which different research groups collaborate from the participating institutions.

The scientists in charge of these areas will develop a cooperative scientific project for the next four years in which the scientific objectives are collected for each area and the resources and means foreseen for achieving them.

The groundwork to ensure the smooth functioning of the processes of supporting the Office will be carried out by means of:



- A business development unit, which from a unique perspective can manage resources and income-generating activities (see chart).
- Updating processes, procedures and standards applicable in the whole Institute, which include among others, membership of groups, group evaluation, participation in companies, quality standards, etc.
- Mechanisms and tools common to all members of IRBLleida. These include common processes regarding training, systems for unique and shared management, the existence of platforms and infrastructures for common research and the development of activities for the dissemination and communication of research results and better links with society.
- Update the management model, based on the philosophy of continuous quality improvement.

3.1.1 Unique transversal programmes to promote excellence

The research and innovation scene in the Bioregion of Catalonia, Spain and Europe, which IRBLIeida finds itself is very competitive with a high level of excellence.

Therefore, our priority is to develop unique research areas with the potential to achieve excellence. These programmes allow us to be competitive and be attractive to attract talent and potential external partnerships.

We propose three programmes that meet the conditions for achieving the objective:

- *Expertise* in the areas of vascular imaging, bioinformatics and calculations.
- They conform to current trends in research and innovation for health.
- Take advantage of territorial opportunities.

3.1.1.1 Programme to provide large databases (Big Data) in the field of atheroma, chronic disease and ageing

The AtherOMA database is being developed (OMA: Atheroma Multidisciplinary Observatory), in which the following databases are integrated and are open to further additions:

- AtheroCAT: High cardiovascular risk patients, from six hospitals in Catalonia and encompassing six specialities.
- AtheroNEFRONA: Patients with chronic kidney disease from 80 state nephrology centres, 3,000 patients, who completed four years of followup.
- AtheroHIV: patients with infection due to HIV in three Catalan hospitals and one hospital in Madrid.
- AtheroBUS: primary care patients in the province of Lleida with ≥ 1



cardiovascular risk factor.

All have parameterised vascular imaging data in common (non-invasive ultrasound), clinical data, biobank samples and informed consent.

The units of internal support are: Unit of Biostatistics and Computational Biology, UDETMA (Unitat de Diagnòstic i Tractament de Malalties Aterotrombòtiques) and the Metabolomics and Proteomics service, for research of new biomarkers in the atheromatous process. The bioinformatic external units are: Inspires and Eurecat. The UDETMA will be integrated as a scientific technical service for IRBLIeida.

3.1.1.2 Programme for training, research and innovation, using the porcine model

IRBLleida is located in one of the most important pig production environments in Europe.

This activity takes place in the CREBA (see description in chapter 2). Its state of the art facilities make it ideal for the following activities:

- Training: It is mainly directed to surgeons and other specialities with surgery procedures. This programme is has been developed and is currently in high demand.
- Research: We will prepare a catalogue of porcine models that are ideal for the study of diseases, which can attract foreign researchers. Our institute is unique in having a porcine experimental centre (CEP), adjacent, which allows for long-term observation.
- Innovation: Meet the conditions to develop devices and generate patents and agreements with industry. Highlight the importance of innovation in processes readying new experimental porcine models for the study of different pathologies. It is currently working on sleep apnoea, strokes, chronic kidney disease and atheroma.

3.1.1.3 Food for health

We have new facilities suitable for this activity. We have to understand the difference between a trial of pharmacologic principles, to be used in a timely manner against a disease, and the use of food in the field of functional foods, nutraceuticals, as well as research in the field of nutridinamics and nutricinetics. Our centre has experience and facilities that cater to schemes like the "living lab", useful for observing consumer habits, to the most cutting-edge biomedical technology, with interaction with the biobank and experts in clinics, essential for evaluating the functional properties of a food or the health effects of a certain lifestyle.



The research environment in Food Technology (Agrotecnio) and the numerous and powerful agro-food industries in the territory, offer us opportunities for using this specialized platform. In conjunction with the latter, we offer the agro-food industry a wide range of experience and expertise in the assessment of products and the creation and support of new business lines. In this sense, the IRBLleida-Agrotecnio team can provide a turnkey product, ranging from food production in the primary sector and its selection based on vectors such as sustainability and leading-edge biotechnology techniques, to its evaluation in preclinical models mimetic of human beings (by CREBA) and final testing of the effects by systematic intervention studies approved by EFSA. All with the experience and support of highly qualified professionals, offering a first-hand opportunity for the valuation of the research.

3.2 Excellence in human resources

Commitment to human resources is strengthened by:

- Detection and mentoring of emerging researchers.
- Attract talent with a welcome package that includes a competitive salary and offices.
- Implementation of the procedures set out in HRS4R for the recruitment and professional career management of scientific personnel.
- Design a career plan to standardize professional categories and create a culture centred on IRBLleida as a central organization.

3.3 Business development

Promote interaction with the industry and other stakeholders by means of:

- The reorganization of scientific activity and the concentration of translational activity by means of the creation of a business development unit, with the functions of Innovation and Technology Transfer; promotion of strategic projects and the acquisition of clinical trials.
- The enhancement of technological scientific services.
- Promote the unique projects, internationally displaying the databases and biobank and the technological offer from CREBA.
- Commitment to leadership in agro-food clinical trials.

3.4 Excellence in management

The professionalization of management is strengthened by:

• The joint commitment to economic sustainability of the centre through good management practices and through a commitment to substantially improve raising competitive financial resources, especially internationally.



- Enlarge a management model based on the philosophy of handing over results to the agents of interest and society as a whole, which inspires all its actions.
- Enhance patronage and the creation of a social and business territorial lobby that supports the activities of IRBLleida.

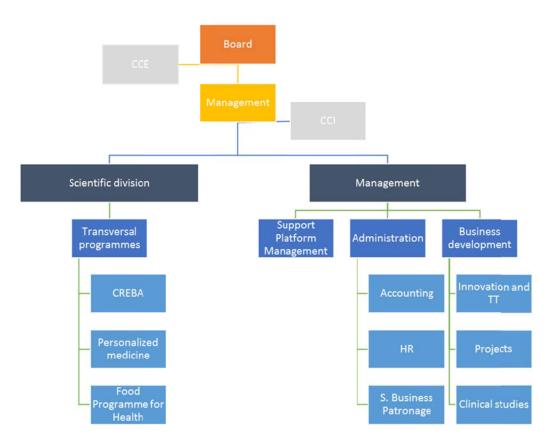


Figure 3: Proposal of the new organization chart with the Business Development Unit

