



Responsible Research & Innovation (RRI) Plan

IIB Sant Pau

#SomCentreCERCA

#SomRecerca (AQUAS)

© Institut d'Investigació Biomèdica Sant Pau (IIB Sant Pau)

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Abbreviations

AGAUR: Agència de Gestió d'Ajuts Universitaris i de Recerca
CRI: Committee on Research Integrity
HE: Horizon Europe
ICS: Institut Català de la Salut
IRISCAT: Institut de Recerca i Innovació en Salut de Catalunya
MOOC: Massive Open Online Course
NCCPE: National Coordinating Centre for Public Engagement
RRI: Responsible Research and Innovation
R&I: Research and Innovation
R&D: Research and Development
OSPP: Open Science Policy Platform
SwafS: Science with and for Society
SDGs: Sustainable development goals

Presentation

The present document exposes the plan to orient IR-IIB Sant Pau to do research and innovation applying Responsible Research and Innovation (RRI) principles. Moreover IIB Sant Pau as Institution does not participate in research projects incompatible with the 17 sustainable development goals (SDGs) agreed by the United Nations in 2015.¹

Responsible Research and Innovation (RRI) is a key action promoted by the European Commission through the program for the Research and Innovation within the [Work Programme 16. Science with and for Society \(SwafS\) in Horizon 2020](#) (H2020).^{2,3}

Now this strategy is defined in [Horizon Europe \(HE\)](#)⁴ as a key funding programme for research and innovation to facilitate collaboration and strengthens the impact of research and innovation in developing, supporting and implementing EU policies while tackling global challenges.

Summarising, the RRI concept aims to align the process and outcomes of research with the needs, values and expectations of society, in order to ensure that public money is properly directed at solving the global challenges in the 21st century.⁵ In summary, it is about democratizing science.

¹ <https://sdgs.un.org/es/goals>

² [Science with and for Society \(SwafS\) in Horizon 2020](#)

³ [The EU framework for Responsible Research and Innovation](#)

⁴ [Horizon Europe](#)

⁵ [RRI Tools project](#)

1. Objectives and scope of the document

The present document aims to define a strategy to implement RRI principles to the IR-IIB Sant Pau, integrating the 6 key issues (*Ethics, Gender Equality, Governance, Open Access and Open Science, Public Engagement and Science Education*) and the 4 dimensions (*Anticipation & Reflexion, Diversity & Inclusion, Openness & Transparency and Responsiveness & Adaptative Change*)⁶ into the same framework.

In the Strategic Plan for Research and Innovation of the IIB Sant Pau, Responsible Research and Innovation already appears as a strategic line of action within the STRATEGIC AXIS 01: Scientific excellence.

To achieve the RRI objectives is necessary to move from conventional governance to ethical governance as a part of institution's DNA. Whereas **conventional governance** focuses on product-related questions, in **ethical governance** the questions move to the process including aspects such as uncertainty, purposes, motivations, social and political constitutions, trajectories and orientations of innovation.

The five pillars of good ethical governance proposed for Alan Winfield, and Marina Jirotko in 2018, (Figure 1) are key to conducting responsible, ethical and value-based research and innovation.



Figure 1: Five pillars of ethical governance. Source: Figure from Vollmer, Debora; Ori, Marcia G. (2020)⁷

⁶ Stilgoe and Owen [et al.], 2013: 1570-1573.

⁷ Vollmer and Ori, 2020: 5.

2. Dissemination, application and monitoring

The Institution of the IIB Sant Pau is committed to communicate the RRI Plan internally, through its communication department.

Our communication and dissemination plan aims to raise awareness on RRI, to provide and share knowledge and training regarding RRI, and to engage with IIB Sant Pau researchers and other stakeholders. Our plan includes targeted actions to different audiences as follows:

Target Audience	Action	Description
IIB Sant Pau researchers	RRI Plan Presentation	Open session about RRI to present both: principles of RRI and the IIB Sant Pau RRI plan. We will invite an international expert on RRI to present why RRI matters and how institutions and researchers can implement the RRI principles. We will have a short presentation with an open Q&A session about the IIB Sant Pau RRI plan.
IIB Sant Pau community	RRI Plan Campaign	We will inform the whole community about the new RRI plan of the institute. We will post the RRI Plan Presentation in our Youtube Channel and will share it within the IIB Sant Pau Community to engage with those who did not attend the event.
All audiences	Web	Create a specific page in our website including the RRI plan.
All audiences, including journalists and media	Featured and news articles or posts	News articles to be published in the website and news releases for the media about any RRI action. Also, interviews and featured articles will be pitched to journalists in order to foster media relations, to provide experts and KOLs, and to provide content to local and national media regarding RRI. These articles will provide views/experiences from experts (both from the consortium as well as externals) on thematic areas relative to the project.
All audiences	Social Media	Content creation for our social media handles in Twitter, LinkedIn and/or Instagram.
All audiences	Synergies with existing initiatives and collaboration	We will engage with other initiatives and will be open to collaborate and participate. We will establish links with organisations, European initiatives (Open Access Week) and projects (RRI Tools, ORION Open Science, etc), research and academic institutions, patient groups, etc.

A training plan on RRI implementation will be designed specifically for the different categories (researchers, technicians, managers and administrators).

In order to monitor the follow-up of the RRI plan, research activity (indicators) will be evaluated on a yearly basis by the CRI.

3. Responsible Research and Innovation (RRI)

3.1. Definition

RRI is a vision of Research and Innovation (R & I) aimed at a collective commitment to carry out Research and Development (R & D) processes in a transparent, dynamic, reflective, inclusive and adaptive way. It is intended to ensure that the different actors (governments, researchers, industry, civil society and science managers) work together throughout the R&I process, taking in mind the process of learning and Innovation as a continuum to **CO-create RRI (CO-RRI)**.

In this process, societal actors and innovators become mutually corresponsive to each other with a view on the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society).⁸

The objective of RRI is to develop practices addressed to achieving sustainable, ethically acceptable and socially desirable results with the aim of cocreating a more socially valuable science that responds to the challenges of society.

The key word is then the cooperation throughout the project, (ie: co-definition, co-design, co-creation, co-developing, co-implementation, among others).

3.2. Background and Justification

Although RRI has paid more attention recently, Responsible Innovation is not a new idea. The need for science, considering social impact, has become a funding condition in many countries,⁹ but was not until 2010 that a specific section labeled as “responsible innovation” was included in a pilot call in UK.¹⁰

⁸ Schomberg, 2011: 39-61.

⁹ Owen and Macnaghten [et al.], 2012: 751-760.

¹⁰ Owen and Goldberg, 2010: 1699-1707.

RRI is necessary because it has been observed:

- **Social rejection** in some new technologies.
- Difficulties in **predicting the impact** of new technologies.
- Early social intervention **can help anticipate impacts** and increase social acceptance.

In Europe, RRI has been promoted by European Commission, through **Horizon 2020**, the framework Programme for Research and Innovation. Now **Horizon Europe** is the Europe Research and Innovation Programme from 2021 since 2027.

In Spain, the technical ***Guide for the evaluation of accreditations of biomedical or health research institutes***,¹¹ approved by the Ministry of Science, Innovation and Universities in the article 12 of the Royal Decree **RD279/2016, of 24 June**, incorporates the RRI label into the criteria that addresses aspects related to one of the **6 principles of RRI: Ethics, Gender Equality, Governance, Open Access, Public Engagement and Science Education**.

In Catalonia, the Governing Council approved on 4 December 2019 the creation of the **IRISCAT (Institut de Recerca i Innovació en Salut de Catalunya)**, an alliance between research and innovation institutes linked to the **ICS (Institut Català de la Salut)** and of which IIB Sant Pau has been part since July 2020. This strategic project of the Health Department is a cooperative workspace with the objective to take advantage of the synergies of the institutes to enhance and make the translational and clinical research of the Catalan health system more competitive, in order to enhance this reference hub in R&D, a benchmark in southern Europe.

The policies and initiatives of higher education, research and innovation of the *Generalitat de Catalunya*, included in the **National Pact for the Knowledge Society**, as well as the Mission, Vision and Values of the **AGAUR (Agència de Gestió d'Ajuts Universitaris i de Recerca)**, approved in 2019, promote the RRI deployment.

The **AGAUR** is committed to the implementation of the RRI through the **European GRACE project** (“Grounding RRI Actions to Achieve Institutional Change in European Research Funding and Performing Organizations”) funded by the research and innovation framework program, Horizon 2020.

The aim is to implement specific activities and measures in funding programs towards institutional change towards the RRI, especially focused on gender equality agendas, ethics and integrity and open access policies.

¹¹ Guía técnica de evaluación de acreditaciones de institutos de investigación biomédica o sanitaria, 2019.

Moreover, the principles and procedures agreed upon internationally in **Universal Declaration on Bioethics and Human Rights of Unesco**¹² should serve as a reference for the development of policies and regulations on scientific integrity, and on responsible research and innovation in research centers.

3.3. Objectives

RRI requires the ability to align in response to changing societal values, agents and circumstances. To achieve this, it is necessary designing and implementing R&I policy that will:¹³

- **involve society** more broadly in research and innovation activities,
- increase **access** to research results,
- ensure **gender equality**, both in the research process and in the content of the research,
- consider the **ethical dimension** and
- promote formal and informal **science education**.

3.4. Requirements

The RRI requirements are based on these 4 dimensions (*Anticipation & Reflexion, Diversity & Inclusion, Openness & Transparency and Responsiveness & Adaptive Change*). This framework gives us an umbrella from which to create policies on the 6 principles of the RRI (*Ethics, Gender Equality, Governance, Open Access and Open Science, Public Engagement and Science Education*) that challenge the 5 identified stakeholders.

¹² <https://unesdoc.unesco.org/ark:/48223/pf0000142825.page=80>

¹³ <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/science-and-society>



Figure 2: Source: Figure from RRI Tools project

To achieve the requirements for every dimension it is necessary:

Anticipation & Reflexion: to **imagine impacts** / results and to think on how the dynamics of R&I itself will affect the future. This increases our ability to act on what we know. **It involves good planning and generation of spaces of shared reflection.**

Diversity & Inclusion: an **early involvement of a wide range of actors (research community, business and industry, policy makers, education community and civil society) in all stages of R&I**, involved in deliberation and decision-making to gain more useful and higher-quality knowledge. This strengthens and broadens the **sources of expertise, disciplines and perspectives.**

Openness & Transparency: to be **significantly open to society** and **communicate** methods, results, conclusions and implications in a balanced and meaningful way, to enable public analysis and dialogue. **It provides visibility and R&I understanding.**

Responsiveness & Adaptive Change: to be able to modify ways of thinking and behaving in organizational structures, in response to changing circumstances, knowledge and perspectives. **R&I needs new values and processes to adapt to emerging knowledge and needs.** It involves **adaptation to change and flexibility in structures.**

3.5. Regulatory Framework: the 6 principles

European Commission has provided normative guidance in the form of the 6 key principles or policy agendas that the RRI needs to promote. At the IIB Sant Pau, we have incorporated different actions to the six key principles to work for the main objectives set by the European Commission.

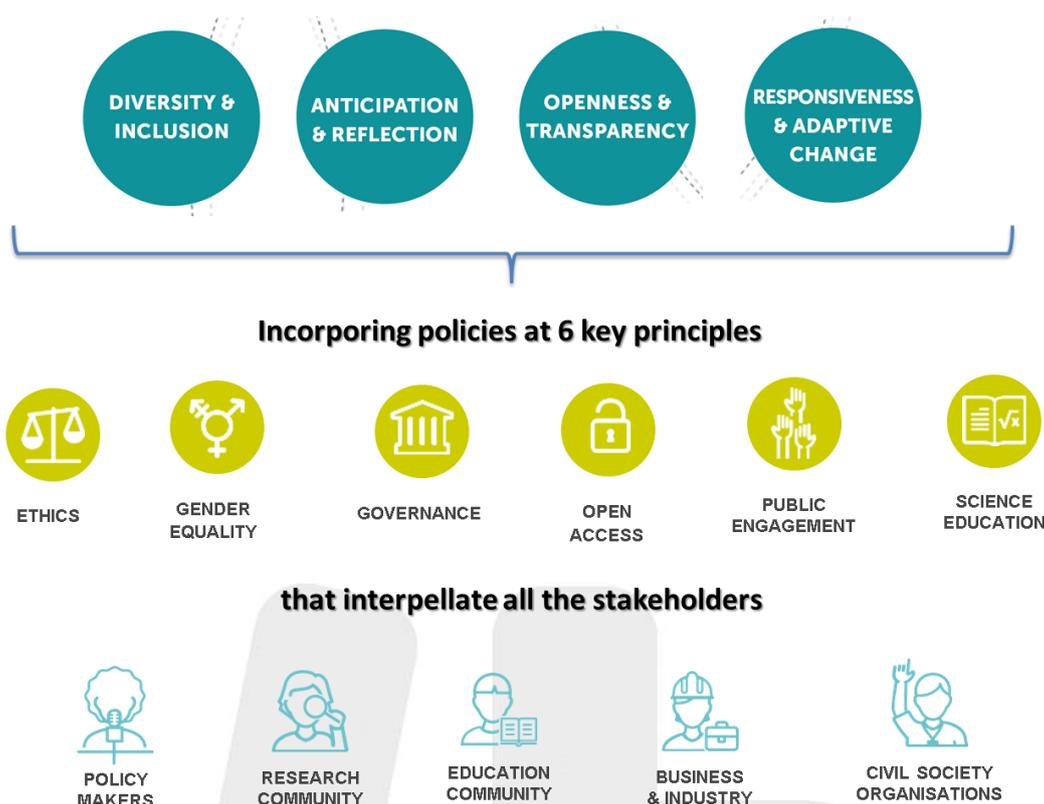


Figure 3: How to incorporate the RRI requirements

3.5.1. Governance

Governance lies at the core of the concept and permeates the entire RRI paradigm. Ethical governance is focused on the process and involves collective responsibility, participation, transparency and reflection, anticipation and responsiveness. An example related to governance and RRI is the Res-AGorA Responsibility Navigator¹⁴ that was conceived as a thinking tool supporting the identification, development and implementation of measures and procedures that can transform research and innovation in such a way that responsibility becomes an institutionalised ambition.

3.5.2. Ethics

Ethics in RRI is a philosophical attitude that involves integrity, reflection on the ideas and concerns of society and integration of different stakeholders to align our research with the values of society.

¹⁴ Kuhlmann, 2016: 135-160.

3.5.3. Gender Equality

Gender equality in RRI involves promoting integration, considering the gender dimension in research, putting in place the means and resources needed to facilitate equality effectively.

The European Research Area (ERA) addresses concerns about gender through five thematic areas:¹⁵ i) Work-life balance and organisational culture, ii) Gender balance in leadership and decision-making, iii) Gender equality in recruitment and career progression, iv) Integration of the gender dimension into research and teaching content and v) Measures against gender-based violence, including sexual harassment.

IR-IIB Sant Pau signed the Commitment Charter to Gender Equity in Research - Hypathia of Alexandria in 2020 to works with the Carta Hipatia¹⁶ 12 principles.

3.5.4. Open Science

Open Science, is defined by Research Information Network in 2010 as *Science carried out and communicated in a manner, which allows others to contribute, collaborate and add to the research effort, with all kinds of data, results and protocols made freely available at different stages of the research process.*

As is illustrated in Figure 4, in the research cycle, there must be openness in the different stages with different actors. As concluded the EU Commissioner Carlos Moedas in the First meeting of the EU-OSPP celebrated in September 2016, Open Science is about making a systemic change in the modus operandi of science and research, which affects the entire research cycle and its stakeholders.

¹⁵ HE. Gender Equality (2021).

¹⁶ Carta d'Hipàtia d'Alexandria. Commitment Charter to Gender Equity in Research - Hypathia of Alexandria.



Figure 4: Source: <https://staff.napier.ac.uk/services/information-services/research-cycle/Pages/home.aspx>

In this context, Open science in RRI involves access to databases, methodologies, results of the research and dissemination to the research community and the rest of society.

3.5.5. Public Engagement

Public Engagement is key to RRI as it allows researchers to align their work with the needs and interests of the citizens. It involves communicating to achieve a public commitment to research with the goal that people play an active role in decisions that affect their lives.

According to the **National Coordinating Centre for Public Engagement (NCCPE)**, Public Engagement describes the myriad of ways in which the activity and benefits of higher education and research can be shared with the public. Engagement is by definition a two-way process, involving interaction and listening, with the goal of generating mutual benefit.¹⁷

3.5.6. Science Education

According to the report “Science Education for Responsible Citizenship”,¹⁸ Democratic societies require an engaged and responsible citizenry contributing at all levels of society, across Europe and the world. The Framework for Science Education for

¹⁷ <https://www.publicengagement.ac.uk/about-engagement/what-public-engagement>

¹⁸ Hazelkorn, [et al.], 2015: 14.

Responsible Citizenship, presented in this report provides a comprehensive set of objectives, recommendations and actions. Specifically, the **objective 5** is give greater attention to **promoting Responsible Research and Innovation (RRI) and enhancing public understanding of scientific findings** including the capabilities to discuss their benefits and consequences and **objective 6** reads to place emphasis on **connecting innovation and science education strategies**, at local, regional, national, European and international levels, taking into account societal needs and global developments.

In this context, Science education in RRI involves not only acquiring skills but also fostering skills that promote the development of the scientific system: critical thinking, creativity, entrepreneurial mindset, interdisciplinary approach.

4. Diagnosis

4.1 External Diagnosis

To identify the 2 uncontrollable external factors (**Opportunities and Threats**) that create or destroy value in the organization, we performed the following SWOT analysis (Figure 5).

Opportunities: are those external, positive situations that are generated in the environment and that, once identified, can be leveraged.

- What good opportunities does the IR-IIB Sant Pau face?
- What trends in research and innovation do you have information about?
- What technology changes are taking place in our environment?
- What changes in legal and / or political regulations are taking place?

Threats: are negative situations, external to the project, which can attack it, so that it may be necessary to design an appropriate strategy to be able to draw it.

- What obstacles does the IR-IIB Sant Pau face?
- What are the competitors doing?
- Can some of the threats completely impede the IR-IIB Sant Pau activity?

4.2 Internal Diagnosis

To identify the 2 controllable internal factors (**Strengths and Weaknesses**) that create or destroy value in the organization, we performed the following **SWOT** analysis (Figure 5).

- Strengths: are all those internal and positive elements that differentiate the program or project others of the same class. What are the benefits of the business?
- What makes the company better than any other?
- What do market people perceive as strength?

Weaknesses: refer, on the contrary, to all those elements, resources, skills and attitudes that the company already has and they constitute barriers to the smooth running of the organization.

- What can be improved?
- What should be avoided?
- What do market people perceive as a weakness?

What factors reduce sales or project success?

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> ○ Considerable number of accredited research groups (48). ○ Translational research: basic and clinical ○ High scientific production. ○ Accreditation as a CERCA Center ○ Accreditation of the Biomedical Research Institute (IR-IIB Sant Pau) by <i>IS Carlos III</i> ○ Competitive funds derived from belonging to the ISCIII Innovation Platform. ○ Clinical Trials Unit: Phase I Unit accredited by <i>Generalitat of Catalunya</i>. ○ R + D + I project portfolio. ○ Portfolio of clients / industry collaborators national and International. ○ HRS4R in implementation phase. ○ To have Equality Plan and Equality Committee. ○ Researchers working in gender-specific research. ○ Ethic Committees in humans (CEIm) and animals (CEEA) . ○ Code of Good scientific Practices. ○ Creation of the RRI unit . ○ Creation of IR-IIB Sant Pau RRI Plan ○ Approval of a Training plan. ○ RRI included in the Strategic Plan, in the Quality Policy and in the R+D+i Policy ○ Creation of Communication unit. ○ Creation of International projects unit. ○ Promotion of the RRHH unit. ○ Strengthening of the Innovation unit. ○ Strengthening of the Knowledge unit. ○ Complementary composition of the IIB Sant Pau, centers with different activities. ○ New scientific facilities and equipment. ○ Increase in competitive fundraising . ○ To have scientific platforms. ○ Good communication and collaboration with the University. ○ To belong to different associations of companies in the Health sector: CataloniaBio & Healthtech, Barcelona Health Hub, Bioinformatics Barcelona. 	<ul style="list-style-type: none"> ○ Scarce economic resources. ○ Lack of policies for professional promotion and retention of talent. ○ Lack of a researcher support office: CV management, funding calls, teaching,... ○ Lack of open access and open data policy ○ Lack of patient / end user involvement in the project. ○ Lack of indicators to measure the impact of research at national and international level. ○ Great dependence on external resources to the institution to improve the cost-effectiveness of the costs associated with research. ○ Currently in a Sustainability Plan (significant economic deficit).Dispersion of research groups (little interaction). ○ Lack of a program to promote talent acquisition. ○ We don't have enough communication tools (internal and external) to communicate efficiently. ○ To generate large amounts of data. No BI systems are available.

OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> ▪ IRISCAT Alliance (Government Strategy). ▪ Funding and collaboration opportunities from the New European framework program (HE). ▪ Creation of working groups and forums on different topics: AQuAS (#somrecerca) gender equality (REGIC and <i>Carlos III</i>), Open access (<i>Carlos III</i>). ▪ Mandatory to incorporate RRI in competitive projects. ▪ To implement IR-IIB Sant Pau RRI Plan ▪ To implement of an integrated computer system to measure impact and results. ▪ To define a open data and open access policies ▪ To promote co-creation activities in the Institution ▪ To identify challenges in the Institution to work on by incorporating RRI practices. ▪ To promote the Sant Pau brand as a quality research and assistance center ▪ Existence of a very important health innovation ecosystem (Barcelona Health Hub). ▪ The empowerment of the patient and society in biomedical research ▪ Changes in R&D policies giving great importance to impact ▪ Existence of the Next generation funds ▪ Potential collaborations for having established a large number of strategic alliances. ▪ Attraction of foreign talent ▪ Creation of de CIR (Committee on Research Integrity). ▪ To incorporate in the Ethics Committee of Research specialised professionals in different areas (ie: new technologies, artificial intelligence, big data, gender perspective) to evaluate research projects through the agendas that compose RRI. ▪ To obtain the ISO9001:2015 accreditation by CEEA. 	<ul style="list-style-type: none"> ▪ Loss of talent. ▪ Environment changing at rapidly. ▪ To face many challenges at once ▪ The existence of many public calls, do not focus. ▪ To have a very competitive environment ▪ Changes in Research and Innovation Assessment Systems. Definition of new indicators.

5. RRI Implementation in IR Sant Pau- IIB Sant Pau

5.1 Governance: objectives and actions

According to the objectives of the European Commission, we are working and implementing different actions to follow RRI requirements in the governance agenda:

- **Governance of IR incorporating RRI**
- **Encourage RRI at all stages of the R&I project**

MAIN OBJECTIVE	Governance of IR incorporating RRI
SUB-OBJECTIVES	ACTIONS
1. Guarantee the balance of gender in the composition of the governing members	1. Modification of CCI and CCE (gender and representativeness)
2. Guarantee transparency, access to public information and good governance	1. To keep the IIB website (following the Law 19/2013 of 9 December on transparency, access to public information and good governance) up to date implementing a label for RRI events and tools. 2. To disseminate the Quality Policy to IIB staff 3. To follow the RRHH Plan that addresses: i) aspects of equal opportunities and equity, ii) policy of incorporation of research, technical, management staff, iii) salary register, iv) job description, following the HRS4R European strategy. 4. To inform internally of the EURAXESS website and announces of job offers to researchers, technicians and managers. 5. To define a Communication Plan 6. To improve internal Communication channels
3. Incorporate stakeholders with public interest into decision-making	1. To do benchmarking in centers that have implemented committees incorporating patients or outpatients
4. Ensure transparency and absence of conflict of interest of Committee members	1. To sign the absence of conflict of interest document for all members
MAIN OBJECTIVE	Encourage RRI at all stages of the R&I project
SUB-OBJECTIVES	ACTIONS
1. Consider RRI requirements in new proposals submitted to calls for research funding	1. To promote RRI training. 2. To share materials, guides and tools to perform research considering the RRI principles in all stages of the research project. 3. To review the reports where the RRI has the most impact (HE).
2. Measure the impact of RRI	1. To define indicators to measure the impact of RRI
3. Promote institutional change that incorporates RRI thinking.	1. To include RRI in the R & D & I Policy 2. To include RRI in the Quality Policy 3. To include RRI in the Strategic Plan

5.2 Ethics: objectives and actions

According to the objectives of the European Commission and the ALLEA¹⁹ code, we are working and implementing different actions to follow RRI requirements in the ethics agenda²⁰:

- **Facilitate structures for ethical reflection**
- **Promote and foster research integrity**

MAIN OBJECTIVE	Facilitate structures for ethical reflection
SUB-OBJECTIVES	ACTIONS
1. Ensure the correct evaluation of projects by the different ethics committees	<ol style="list-style-type: none"> 1. To incorporate in the Ethics Committee of Research specialised professionals in different areas (ie: new technologies, artificial intelligence, big data, gender perspective) to evaluate research projects through the agendas that compose RRI. 2. To obtain the ISO9001:2015 accreditation by CEEA.
MAIN OBJECTIVE	Promote and foster research integrity
SUB-OBJECTIVES	ACTIONS
1. Observe and promote honesty, reliability, impartiality, independence and objectivity in conducting research.	<ol style="list-style-type: none"> 1. Updating the Code of Good Scientific Practice (Integrating CERCA Code of Ethics in our research). 2. Follow the IR Code of Ethics 3. To develop a Quality Plan to accomplish with the Good Practices (GCPs, GMPs, GLPs) and Management Process (ISO 9001, UNE166002) 4. Redefining excellence, rethinking research evaluation (Adherence to DORA Declaration)
2. Avoiding falsification, plagiarism or other research misconduct.	<ol style="list-style-type: none"> 1. Designate an ombudsperson and define the procedure in case of suspected misconduct. 2. Create the CRI (Committee on Research Integrity) 3. To develop the Integrity Research Code
3. Accomplish with LPD legislation	<ol style="list-style-type: none"> 1. Implement actions derived from IR risk analysis 2. Adherence to <i>TIC salut</i>
4. Promote the research career with incentives.	<ol style="list-style-type: none"> 1. Implement actions to achieve this proposal

¹⁹ <http://www.allea.org/>

²⁰ EU Grants: How to complete your ethics self-assessment, v2.0 13.07.2021

5.3 Gender Equality: objectives and actions

According to the objectives of the European Commission and the Law 17/2015 (on the effective equality of women and men)²¹, we are working and implementing different actions to follow RRI requirements in the Gender Equality agenda:

- **Gender balance in decision making**
- **Gender balance in R&I**

MAIN OBJECTIVE	Gender balance in decision making
SUB-OBJECTIVES	ACTIONS
<p>1. Inclusion of gender experts in expert groups and evaluation panels.</p>	<ol style="list-style-type: none"> 1. Integration of women in decision-making committees, advisors and positions of responsibility. 2. In the researcher's evaluation, include specific conditions in the guidelines for researcher's evaluation for maternity/paternity or long-term illness situations (i.e. extend period of evaluation)
<p>2. Involvement of the IR's management team</p>	<ol style="list-style-type: none"> 1. To assign a specific budget to implement measures that promote gender equality 2. Participation of the steering committee in the equality committee 3. Hiring external counseling specialized in Equality 4. Composition of the governing committees and commissions disaggregated by gender.
MAIN OBJECTIVE	Gender balance in R&I
SUB-OBJECTIVES	ACTIONS
<p>1. Inclusion of gender balance in all levels in research teams and management structures</p>	<ol style="list-style-type: none"> 1. To monitor the actions implemented after adhering to the European Charter for Researchers (HRS4R) 2. Specific training in gender perspective and harassment 3. Dissemination of specific mail for equality issues and reporting channels in situations of harassment 4. To design a survey to measure the equality needs of institute staff. 5. To promote / Ensure parity in: i) training provided, ii) reception, iii) dissemination / communication actions, iv) work teams. 6. Facilitate the mobility of jobs for reasons of protection of maternity, breastfeeding and situations of special sensitivity. 7. To incorporate a gender perspective in health monitoring and promotion (eg addressing different ergonomic issues) 8. Incorporating gender perspective into citations²²

²¹ Llei 17/2015, del 21 de juliol, d'igualtat efectiva de dones i homes.

<https://portaldogc.gencat.cat/utillsEADOP/PDF/6919/1436051.pdf>.

²² Patrias and Wendling [et al.], 2007.

	<ol style="list-style-type: none"> 9. To update / maintain the RRHH Plan aimed at researchers, technical and management staff with actions on: i) research career, ii) generational change and iii) women leadership 10. To ensure that the calls have an inclusive language. 11. Mixed committees in the selection of personnel. 12. In job interviews, use of neutral selection techniques that omit personal information (marital status, family responsibilities, etc.). In case of a tie, establish as a procedure selection, the election of the candidate of the minority gender represented in the organization.
<p>2. Commitment to promoting equal opportunities for men and women in major agreements.</p>	<ol style="list-style-type: none"> 1. To update and disseminate the Equality Plan 2. To inform the staff on the development and results of the Equality Plan. 3. Incorporation of gender equality in the Strategic Plan 4. Use impartial, non-discriminatory language, too in corporate communication. 5. Establish non-sexist oral and written communication protocols. 6. To offer training at the staff that reach women and men in an equivalent way. 7. Establish a protocol for a non-sexist external image 8. Redefining excellence, rethinking research evaluation (Adherence to DORA Declaration) 9. Calculate the age gap by age worked 10. To analyze the position of women in research centers and the distribution of staff at different levels of responsibility (Have the scissors graph updated). 11. To balance the number of group leader positions by gender 12. Existence of a family conciliation plan with a specific budget 13. Quantify the number of women and men doing telework.
<p>3. Consider gender-specific research in research to fill knowledge gaps²³</p>	<ol style="list-style-type: none"> 1. To encourage studies in pathologies that affect women in greater proportion (raise gender-sensitive hypotheses). 2. To promote the inclusion of gender perspective in the entire research project 3. To stratify the results of the investigations by sex/gender. 4. To disseminate the results of the investigations considering gender perspective

²³ Llei 17/2015, del 21 de juliol, d'igualtat efectiva de dones i homes (article 49)

5.4 Open Science: objectives and actions

According to the objectives of the European Commission, we are working and implementing different actions to follow RRI requirements in the Open Science agenda:

- **Implement Open Access policies**
- **Promote Open Access in research**

MAIN OBJECTIVE	Implement Open Access policies
SUB-OBJECTIVES	ACTIONS
1. Define the Open Access policy	<ol style="list-style-type: none"> 1. Proposal for an open access policy that includes: i) promoting open access to publications in Open Access and Open Data media, and repositories known, standardized and compatible with European infrastructures (ie: OpenAire), ii) facilitate the open publication of data in standardized and recognized repositories. 2. Approval of the policy 3. Training / Communication
2. Implementation of the Open Access policy	<ol style="list-style-type: none"> 1. Revision of the IIB Sant Pau's Affiliation 2. Approval of the IIB Sant Pau's Affiliation 3. To implement the ORCID of all researchers. 4. To promote the institutional repository (UAB Digital Repository of Documents) 5. To perform Training / Communication
MAIN OBJECTIVE	Promote Open Access in research
SUB-OBJECTIVES	ACTIONS
1. Fostering the culture of Open Science	<ol style="list-style-type: none"> 1. To conduct internal and external fostering Plan encouraging developing actions in Open Science. 2. To identify IR groups that publish data in open access repositories
2. Improve access to the use and reuse of data and research results generated by projects.	<ol style="list-style-type: none"> 1. To monitor that publications derived from publicly funded projects are made in Open Access media. 2. To monitor that research data of public funded projects are available in open data repositories

5.5 Public Engagement: objectives and actions

According to the objectives of the European Commission, we are working and implementing different actions to follow RRI requirements in the Public Engagement agenda:

- **Facilitate participation structures**
- **Influence in the R&I agendas**
- **Co-develop and co-decide on R&I**

MAIN OBJECTIVE	Facilitate participation structures
SUB-OBJECTIVES	ACTIONS
<p>1. Include public interest groups (patient organizations, citizen groups) in the definition and supervision of R&I (advisory and evaluation boards, ethics committees)</p>	<ol style="list-style-type: none"> To inform population (patients / healthy volunteers) of the trials and research projects (via social networks). To promote synergies with citizens and social entities, establish spaces for dialogue (ex: <i>Think Tanks in Catalonia</i>).²⁴ To encourage citizen participation through crowdfunding actions To include in CCE a representant of the <i>Plataforma de Organizaciones de Pacientes</i> (https://www.plataformadepacientes.org/alianzas)
<p>2. Develop structures related to the goal of promoting dialogue between multiple stakeholders.</p>	<ol style="list-style-type: none"> To create a plan for translating scientific results including key actors. To develop training activities on scientific communication, aimed at key non-scientific actors and on translation into healthcare practice.
MAIN OBJECTIVE	Influence in the R&I agendas
SUB-OBJECTIVES	ACTIONS
<p>1. increase citizen participation in monitoring the transparency of the results of R&D projects.</p>	<ol style="list-style-type: none"> Dissemination of R&I results in: Magazines, professional associations, professional academies, schools, institutes, universities, museums ...
<p>2. Influence the political agenda and decision-making</p>	<ol style="list-style-type: none"> To participate actively, achieve a relevant role in the forums of debate on the public agenda (IRISCAT, CERCA, ISCIII, REGIC). Cooperation with the big media Position the management as a KOL and encourage them to be spokespersons in events, media, etc.
MAIN OBJECTIVE	Co-develop and co-decide on R&I
SUB-OBJECTIVES	ACTIONS
<p>1. Encourage participatory research and technological evaluation projects with more relevant results for society (community-based research, implementing participatory research designs).</p>	<ol style="list-style-type: none"> To have an internal diagnose to evaluate projects in wich patients has been involved To visibilize projects/initiatives where patients participated. To create an evaluation committe
<p>2. Contribution by citizens to reflections on ethical and social aspects of science or on science if he has the knowledge</p>	

²⁴ Ponsa and Xifra, 2012.

5.6 Science Education: objectives and actions

According to the objectives of the European Commission, we are working and implementing different actions to follow RRI requirements in the Science Education agenda:

MAIN OBJECTIVE	Promote collaboration between multiple stakeholders
SUB-OBJECTIVES	ACTIONS
<p>3. Encourage motivation for younger people and general population for science.</p>	<ol style="list-style-type: none"> 1. To maintain and foster the current public engagement activities with the local community (ie: round tables and talks at in the local community centres <i>Centre Civic Navas and Guinardó</i>) and to promote and participate in new outreach activities in the city or the country (Argumenta BCN, Festa de la Ciència,) 2. To hold Open Days for citizens, including guided tours for the different IR facilities (laboratories, CIM, core facilities...) 3. To organize workshops or scientific talks with students. (eg: Escolab, the European Researchers' Night, Festa de la Ciència)
<p>4. Growth in collaboration between formal, non-formal education providers, business, industry and civil society.</p>	<ol style="list-style-type: none"> 1. To increase collaborations (sign agreements) with university centers, primary and secondary schools, companies, industries.

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