PF-IISFJD
V.4

TRAINING PLAN 2024-2028

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1. INTRODUCTION AND OBJECTIVES

The Fundación Jiménez Díaz Health Research Institute (IIS-FJD) is an organisation with a strong commitment to professional development and to enhancing the competencies and capabilities of its researchers. The partnership between the Fundación Jiménez Díaz University Hospital (HUFJD) and the Autonomous University of Madrid (UAM) has been instrumental in promoting training and educational development among the Institute's members, which constitutes a highly constructive and beneficial alliance.

One of the purposes of the Fundación Jiménez Díaz Health Research Institute (IIS-FJD), as set out in the Articles of Association of the IIS-FJD Foundation and in the Agreement for the Development of the Activities of the Fundación Jiménez Díaz Health Research Institute, signed on May 18th 2021, is to "promote and develop research programmes and projects, as well as researcher training initiatives, with particular emphasis on the scientific training of professionals in research methodology and on addressing the needs of the Primary Care setting".

For this reason, the Institute's current Strategic Plan, which encompasses the 2024-2028 period, includes the Strategic Objective KNOWLEDGE: "To consolidate a scientific culture within the organisation by enhancing the training and communication skills of professionals, promoting the dissemination of knowledge to SOCIAL STAKEHOLDERS, and fostering a citizen-oriented approach."

To achieve this objective, "Action Plan 6.1: Scientific Training Plan has been developed". This plan sets out the main activities to be implemented in the field of training with the aim of establishing a structured framework of training pathways that ensures the appropriate education and skills development of all IIS-FJD professionals across all professional categories and training levels.

Accordingly, this IIS-FJD Training Plan has been developed, covering the same period as the Strategic Plan within which it is framed, namely 2024-2028.

1.1. Objectives of the Training Plan

The overall objective of the IIS-FJD Training Plan is to strengthen and expand scientific knowledge, both in general terms and within the priority research areas focused on addressing clinical challenges.

This objective is implemented through the following specific objectives:

- The continuous acquisition of scientific knowledge, aptitudes, competencies and skills by all professionals of the Institute, both healthcare and non-healthcare staff, according to their role and level, to enhance the quality of the priority research lines and areas defined in the Scientific Plan.
- The provision of theoretical, practical and methodological training to enable the appropriate use of biotechnological and bioinformatics resources, as well as the application of the techniques required for conducting research.
- The provision of ethics training to ensure that scientific practice is conducted in accordance with good research practices.
- The promotion of interaction between clinical and basic scientists through the creation of a “scientific cultural community” as a foundation for translational research.

This Training Plan aims to foster a critical mass of researchers capable of producing a greater amount of high-quality knowledge in the various biomedical areas considered priorities by IIS-FJD.

1.2. Structure of the Training Plan

To achieve the objectives outlined above, the IIS-FJD Training Plan is structured into the following sections:

- Target audience of the Plan: this section provides a description of the main groups for whom the Training Plan is intended, identifying the priority professional categories.
- Training management structures: to coordinate and monitor all training activities within the Institute, this section describes the main training-related structures in place at IIS-FJD.
- Training needs assessment: effective planning of the training offered requires consideration of the training needs identified by Institute staff. To this end, this section outlines the needs assessment mechanisms implemented within our institution.
- Priority training areas: all scientific training delivered within the framework of the Institute is organised around a series of training areas, which are described in this section.
- Training tools and channels: to deliver and develop the priority training areas, it is necessary to identify the tools and channels available within the organisation that will be used to provide training to staff.
- Evaluation and monitoring of the Plan: in line with the organisation's commitment to continuous improvement, this section describes the process for evaluating and monitoring the Training Plan to ensure its ongoing review and updating.
- Communication channels: finally, this section provides an overview of the main channels used for the dissemination and communication of the Training Plan to promote awareness of the training activities planned by IIS-FJD in this area.

2. TARGET AUDIENCE OF THE TRAINING PLAN

The present IIS-FJD Training Plan encompasses the training activities aimed at all professionals within the organisation, as well as researchers and students at different educational levels who are interested in participating in the training opportunities offered by the Institute.

Accordingly, the courses and activities included in the IIS-FJD Training Plan are intended for the following target groups:

- Undergraduate Students: primary school students, students who participate in the 4th ESO + Company Programme, and upper secondary school students who are interested in undertaking an observational placement at IIS-FJD.

- Students enrolled in Intermediate and Advanced Vocational Education and Training programmes, as well as students from Vocational Training Centres and Secondary Education Schools within the Community of Madrid, who are interested in the research activities carried out at the Institute.

- Undergraduate students from educational institutions with educational cooperation agreements with IIS-FJD, carrying out curricular placements and bachelor's degree final projects in IIS-FJD research laboratories, mainly from UAM, as well as from other national and international.

- Students enrolled in master's degree and/or doctoral programmes, as well as those undertaking research projects as part of their doctoral thesis, from UAM and other partner universities.

- Healthcare professionals who undertake Specialist Healthcare Training (in Spanish, FSE) programmes at HUFJD and other affiliated hospitals that receive both theoretical training in research and practical training through placements in IIS-FJD research laboratories. In addition, Primary Care specialist physicians are also beneficiaries of this training, accessing it through the Primary Care Professional Portal.

- IS-FJD research staff and research trainees, laboratory technicians, professionals responsible for institutional support services, and other technical support personnel, through training courses aligned with the Institute's research areas, as well as seminars, conferences, scientific meetings, and placements at collaborating external institutions.

- Management and administrative staff of the IIS-FJD.

3. TRAINING STRUCTURES

The Scientific Directorate of IIS-FJD is responsible for planning and approving the Institute's training activities. It is supported in this role by the training subcommittee, which is part of the Institute's Research Committee and includes, among others, faculty members from the UAM Faculty of Medicine and the IIS-FJD Training Coordinator. The coordinator acts as the main point of liaison among all parties involved.

The training plans developed are submitted to the External Scientific Committee for evaluation. The recommendations and proposals for improvement issued by this body are taken into consideration and incorporated into the training planning process. This plan is then submitted to the Board of Trustees and is ultimately approved by the Institute's Governing Board.

This Plan is subject to an annual evaluation conducted by the IIS-FJD training subcommittee. Based on the results obtained from the Plan's indicators, the subcommittee proposes any relevant modifications, which follow the same approval, implementation, and dissemination procedures as the initial approval.

In addition, IIS-FJD has incorporated into its organisational structure the following training leads, representing HUFJD, UAM and the IIS-FJD research groups, in order to foster synergies among the institutions that make up the Institute as part of the integration process, while increasing the efficiency of the resources allocated to training. The Institute also receives support from the IIS-FJD Research Management Office.

TRAINING AREA	LEADER	ORGANISATION	PARTICIPATING GOVERNING BODIES
Undergraduate Medical Education	**Prof Damián García Olmo** (Professor of Surgery and research group leader)	HUFJD / UAM	IIS-FJD Research Committee IIS-FJD Training Subcommittee Scientific Integrity Committee

TRAINING AREA	LEADER	ORGANISATION	PARTICIPATING GOVERNING BODIES
Non-Medical Undergraduate Education	**Dr Raquel Largo Carazo** (Group leader)	IIS-FJD	IIS-FJD Research Committee IIS-FJD Training Subcommittee IIS-FJD Training Coordinator
	Dr Carmen Gómez Guerrero (Tenured Lecturer at the Faculty of Medicine and research group leader)	UAM	IIS-FJD Research Committee IIS-FJD Training Subcommittee Member of the CEBA
Postgraduate Education	**Dr Raquel Largo Carazo** (Group leader)	IIS-FJD	IIS-FJD Research Committee IIS-FJD Training Subcommittee Technical Secretary of the IIS-FJD CEBA IIS-FJD Training Coordinator
	Dr Carmen Gómez Guerrero (Tenured Lecturer at the Faculty of Medicine and research group leader)	UAM	IIS-FJD Research Committee IIS-FJD Training Subcommittee Member of the CEBA
Specialist Healthcare Training (FSE)	**Prof Leandro Soriano Guillén** (Chair of the HUFJD Teaching Committee and Director of Postgraduate Medical Education)	HUFJD	FSE Teaching Committee IIS-FJD Training Subcommittee
Research Training	**Dr Raquel Largo Carazo** (Group leader)	IIS-FJD	IIS-FJD Research Committee IIS-FJD Training Subcommittee IIS-FJD Training Coordinator

TRAINING AREA	LEADER	ORGANISATION	PARTICIPATING GOVERNING BODIES
	Dr Lucía Llanos Jiménez (Secretary of the CEIm and Head of the UICEC)	HUFJD	IIS-FJD Research Committee IIS-FJD Training Subcommittee Technical Secretary of the HUFJD CEIm Member of the Scientific Integrity Committee
	Dr Victoria del Pozo Abejón (Deputy Scientific Director, group leader	IIS-FJD	Secretary of the IIS-FJD Research Committee Member of the IIS-FJD Training Subcommittee Member of the Quality and Innovation Committee

4. TRAINING NEEDS ASSESSMENT

The success of an effective Training Plan lies in its ability to adapt to the needs and requirements of the professionals for whom it is intended, while also considering the environmental factors that will enable its target audience to update and enhance their skills and knowledge.

For this reason, the IIS-FJD Training Plan includes this section on training needs assessment, with the aim of establishing the foundations upon which the Plan will be reviewed and revised in future years.

The three main sources used to identify training needs at IIS-FJD are the needs of the Spanish National Health System (in Spanish, SNS), the needs of the R&D&I environment, and the specific needs of the professionals targeted by the Plan.

4.1. Spanish National Health System needs

The needs of the Spanish National Health System (SNS) have been taken into account in defining the strategic areas that constitute the scientific framework of IIS-FJD. Accordingly, training activities have been prioritised and directed towards addressing health challenges through basic, clinical and epidemiological research to translate this knowledge into clinical practice.

The integration of translational research with clinical practice ensures higher quality healthcare services and facilitates the more effective and timely implementation of scientific advances in the prevention, diagnosis and treatment of a wide range of diseases. This process is further supported by the IIS-FJD Knowledge Transfer and Translation Plan, which provides a structured framework to optimise the incorporation of research findings generated by the Institute's professionals into routine clinical practice as efficiently as possible.

In addition, HUFJD offers a **range of continuing education courses** which, although not specifically focused on the scientific field, complement the Institute's training portfolio and contribute to further strengthening the integration of research and clinical care.

Finally, the Training Subcommittee, composed of researchers from our institution, maintains continuous interaction with professionals from all sectors of IIS-FJD. Through this close collaboration, training needs and opportunities identified in their working environment are

directly communicated and may be incorporated into the Institute's scientific training portfolio, thereby enhancing the knowledge and skills of professionals in this field.

4.2. R&D&I environment needs

One of the major priorities of the Spanish Strategy for Science, Technology and Innovation 2021-2027 is to "generate knowledge and scientific leadership by optimising the position of researchers and institutions, as well as the quality of their infrastructures and equipment". This objective is reflected in the State Plan for Scientific, Technical and Innovation Research (in Spanish, PEICTI).

This State Plan includes a cross-cutting programme aimed at strengthening human resources, in which IIS-FJD already participates. Among its objectives is ensuring the development and adaptation of **researchers in training** through education, training and active engagement in research activities.

IIS-FJD prepares applications and nominates candidates to participate in these programmes aimed at the early stages of the research career, including predoctoral programmes funded by the Carlos III Health Institute (ISCIII), such as PFIS (which are predoctoral contracts for health research training) and iPFIS (which are funding schemes of the Carlos III Health Institute aimed at the initial training of researchers in Health Sciences and Health Technologies through the completion of a doctoral thesis within a public–private collaborative environment), as well as programmes funded by the Ministry of Science, Innovation and Universities, including Research Personnel Training (in Spanish, FPI) and University Teacher Training (in Spanish, FPU). In addition, it prepares applications and nominates candidates for postdoctoral researchers at the consolidation stage (the "Juan de la Cierva" and "Sara Borrell" programmes), as well as for programmes aimed at stabilising researchers within the Spanish National Health System (SNS) (the "Ramón y Cajal" and "Miguel Servet" programmes). It also supports programmes designed to establish and consolidate the research careers of clinical professionals (the post-specialist healthcare training programme, "Río Hortega", and the programme for outstanding clinical researchers in Health Research Institutes, "Juan Rodés"), thereby incorporating both predoctoral and postdoctoral researchers into its research groups. IIS-FJD also participates in research training programmes promoted by the Community of Madrid (in Spanish, CAM),

including grants for industrial doctorates, funding schemes for the recruitment of predoctoral and postdoctoral researchers, and initiatives aimed at attracting research talent to R&D institutions across the Community of Madrid. Furthermore, the Institute promotes the mobility of researchers and young scientists in training through participation in official mobility schemes, such as the M-BAE and M-AES programmes.

Universities also play a major role in promoting research training through master's degree programmes and Undergraduate Final Projects (TFGs) offered across a range of academic disciplines. In this context, IIS-FJD hosts students enrolled in official master's programmes delivered by UAM and other universities to undertake their master's Thesis Projects (TFMs), as well as undergraduate students completing their curricular placements and Undergraduate Final Projects (TFGs) at IIS-FJD. As part of these activities, researchers at the Institute supervise a research project carried out by the student during their placement in our laboratories for the period established by their university. At the end of the placement, the student prepares and submits the corresponding dissertation or project report for assessment by their university.

Furthermore, IIS-FJD remains attentive to advances in technologies, techniques and methodologies that may contribute to improving the quality of its scientific activities. Accordingly, the suitability of incorporating innovative topics and approaches relevant to Institute professionals into the annual training programme is regularly assessed.

4.3. Research staff needs

The quick evolution of the scientific environment requires the continuous and planned to update of the scientific and technological knowledge of research and clinical staff. Therefore, the training programme must address these needs to maintain and enhance their competencies, while improving the scientific standards of IIS-FJD and facilitating the translation of research into clinical practice.

Training needs will be primarily related to the Institute's strategic research areas, the application of new technologies and techniques, and their translational nature.

In addition to the courses and seminars delivered at IIS-FJD, other training needs are addressed through mobility programmes involving specific placements at national and international

institutions, as discussed in the previous section. In this regard, accreditation as a Health Research Institute has enabled IIS-FJD to establish a collaborative framework with other accredited institutions, facilitating the exchange of knowledge and expertise throughout the national territory.

The primary tool available to the Institute to indentify the training needs of its professionals is the Training Needs Assessment Survey. This survey, which is addressed to all IIS-FJD staff, comprises the following sections:

- Personal details of the respondent.
- Specific training needs related to area or service: it includes a table for listing the proposed training activities, with fields for the following information:
    - Course or topic title.
    - Reason for the training need: refresher training, new legislation, new technologies, etc.
    - Target professional categories.
    - Estimated number of professionals to whom the activity is addressed.
    - Target percentage of staff to be trained through the activity.
- General issues: it identifies the assessment and monitoring systems implemented within the area or service to improve the delivery of training.
- Comments and suggestions: a space is provided for the inclusion of any additional comments, observations, or suggestions deemed relevant.

Once the surveys have been collected, they are systematically reviewed and analysed to identify new initiatives that may be incorporated into future editions of the Institute's Training Plan. This process promotes the active involvement of all professionals in the development and continuous improvement of the IIS-FJD training programme.

Moreover, IIS-FJD promotes forums and meetings among researchers through the activities of its research areas. These meetings bring together all research groups within each area and provide a platform for addressing a wide range of topics. In recent years, the research areas have met with the objective of developing their own Area Action Plans, which are structured around the following sections

- Structure of the scientific activities carried out by the research groups within the area.
- Scientific objectives of the area and the indicators used to assess the extent to which these objectives are achieved.
- Training needs of the groups within the area, aimed at supporting the achievement of their scientific objectives.

Accordingly, these meetings and workshops offer research groups an additional mechanism to identify and communicate their training needs and interests. The results are subsequently analysed and reported to the Research Committee, which is responsible for assessing and proposing new training content for inclusion in future iterations of the IIS-FJD Training Plan.

5. TRAINING TYPES AND AREAS

This section of the IIS-FJD Training Plan describes the different training categories available to its professionals. All initiatives implemented under this Plan are organised according to the defined training levels and are aligned with the priority training areas established by the organisation to foster scientific development and enhance institutional competitiveness.

5.1. Training Levels at IIS-FJD

As previously noted, the Institute's current training portfolio covers all levels of training, including pre-university and undergraduate education, postgraduate education, Specialist Healthcare Training (FSE), and continuing professional development.

To organise and structure its training portfolio more effectively, IIS-FJD has defined three broad areas of action aimed at strengthening the knowledge and skills of its professionals: introductory training, advanced training, and cross-cutting competencies in Responsible Research and Innovation (RRI).



Introduction – research training

This training level is aimed at students and early-career professionals who wish to acquire knowledge and skills in health-related R&D&I, as well as those who are beginning their research careers. It includes all activities and initiatives intended to foster scientific interest and to lay the foundations for a professional career in research.

Objectives of this level

- Fostering interest in science.
- Disseminating basic scientific concepts.
- Promoting the identification and recruitment of talented individuals and future researchers.
- Introducing healthcare professionals, undergraduate students and postgraduate students to research methodology.

Target audience

The target audience for the activities included within this training level comprises individuals who are in the early stages of their scientific training:

- Undergraduate students in the field of Health Sciences.
- Technical support staff, including both laboratory personnel and staff working within Research Support Services.
- Professionals undertaking Specialist Healthcare Training, who have expressed an interest in research and wish to pursue a professional career in this field.
- Predoctoral researchers who are pursuing their doctoral thesis through master's studies or within the framework of a doctoral programme.
- Postdoctoral researchers who, following the submission and defence of their doctoral thesis, wish to continue their training and further consolidate their scientific career.

Main training channels

The main training channels and tools available at IIS-FJD within this level are:

- University Studies:

  - Health Sciences degree programmes and other related undergraduate degrees.
  - Master's degrees and doctoral programmes.

- Scientific seminars.
- Training courses.
- Workshops.
- Scientific meetings.
- Training placements.
- Calls for the recruitment of researchers in training.
- Motivational awards.

Perfection – advanced specialised training

Once professionals have established a defined scientific career path with future potential, IIS-FJD provides them with a range of training activities aimed at further developing their competencies and knowledge, both in research itself and in other areas, such as research management. These activities are therefore intended to consolidate and diversify the skills and capabilities of researchers with more extensive experience in research.

Objectives of this level

- To keep abreast of new advances and developments in their fields of activity.
- To acquire training in new scientific techniques relevant to their field of activity that can be applied in their day-to-day work.
- To deepen their understanding of, and learn how to promote, high-quality, ethical, responsible and honest research practices.
- To diversify their competencies in new areas to consolidate their professional activity from a multidisciplinary perspective.

Target audience

The main target audience for the training activities included within this level consists of individuals who, having acquired the knowledge and skills developed in the previous level, are in a second stage of scientific consolidation. However, these training activities are also open to professionals who, although still at an early stage of their training, are interested in gaining a deeper understanding of specific topics included in this training offer. Therefore, the target profiles for this level are as follow:

- Established researchers, physicians and specialists.
- Research support staff.
- Management staff.
- Researchers in training with a specific interest in any of the topics covered at this training level.

Main training channels

The channels and tools used at this training level are more focused on the delivery of specialised courses and the organisation of workshops and events which, in addition to the training they provide and facilitate the creation and development of synergies among participants as an added benefit of the training initiatives themselves.

- Specialised courses on specific topics.
- Scientific seminars.
- Thematic workshops.

Cross-cutting competencies in RRI

One of the main current trends in the field of R&D&I is the promotion of greater societal participation in scientific activities, as well as a stronger orientation towards open, responsible and transparent science. As a result, an increasing number of institutions are adapting their structures and practices to align with these principles.

Aware of this trend, IIS-FJD has defined a final training level aimed at equipping all professionals within the organisation with competencies in this area.

Objectives of the training level

- To foster a culture of responsible research and innovation throughout the Institute.
- To align with international policies and trends.
- To promote the involvement of key non-scientific stakeholders, as well as the non-specialised public, as active contributors to the research process.

Target audience

As the primary objective of this training level is to promote a culture of RRI across the entire organisation, its target audience includes all professional categories and staff profiles within IIS-FJD.

Main training channels

Training in RRI is a specific area within advanced specialised training that has been established as an independent training level due to its importance and impact. Consequently, the channels and tools available are similar to those defined for the previous training level:

- Courses.
- Seminars.
- Workshops / thematic events.

5.2. Priority training areas

The thematic areas under which all IIS-FJD training activities must be organised should address the objectives defined within the three training levels that structure this framework. The annual planning of courses, seminars and other events must therefore be aligned with the thematic areas defined in this section.

The definition of the priority training areas has considered the needs identified within the Spanish National Health System (SNS), the R&D&I environment, as well as the needs of IIS-FJD researchers and professionals themselves.

The priority training areas currently established at the Institute are as follows:

- Basic concepts in Health Sciences.
- Training activities in research methodology, statistics, scientific databases, data management and data protection.
- Training activities in animal experimentation.
- Occupational risk prevention, radiation protection, and other laboratory safety measures.
- Research management training, aimed at management staff and Principal Investigators (PIs) of research projects.
- Research evaluation training, intended for staff involved in the preparation and writing of research proposals.
- Training activities in innovation, with a particular focus on the transfer of research results to the private sector and their translation into routine clinical practice.
- Training in specific scientific and technical aspects aimed at enhancing or updating capacities, as well as providing knowledge of new developments and advances across different fields of expertise.
- Activities focused on other relevant aspects of Responsible Research and Innovation (RRI):
    - Open-access dissemination of R&D&I results (scientific publications and research data), including, among other aspects, intellectual property alternatives, open access policies, and data management plans.
    - Gender equality and the integration of the gender dimension into R&D&I.
    - Ethics and research integrity.
    - Cross-cutting competencies in scientific leadership and the translation of knowledge into healthcare practice.
    - Aspects related to participation, co-creation and communication with non-scientific stakeholders.

- Activities aimed at key stakeholders or system actors: this category includes individuals and organisations that are not researchers but can contribute to, or benefit from, research by playing a role either in the scientific process itself or in the outcomes, benefits or application of research. These include decision-makers, managers and planners in R&D&I, education and healthcare; healthcare professionals working in clinical practice, public health or social care settings; teaching staff; scientific societies; civil society organisations; patient and caregiver associations; NGOs; industry representatives; the media; and citizens.

5.3. Structure of the Plan: Training Programmes

Considering the training levels established at IIS-FJD and the priority training areas identified for the development of its professionals, all training activities can be structured around six major training programmes, as outlined below:

- Undergraduate student training.
- Undergraduate degree student training.
- Postgraduate student training.
- Training of IIS-FJD research staff (permanent staff).
- Research training for Primary Care professionals.
- Seminars, Conferences and Scientific Meetings.

6. TRAINING TOOLS AND CHANNELS

Following the definition and description of the priority training areas of IIS-FJD and their organisation into different training levels and programmes, this section provides a detailed description of the training channels and tools available to the Institute for the delivery of its annual training offer.

These channels and tools have been organised according to the entity responsible for promoting the initiative. Accordingly, two main categories are identified:

- In-House training channels. These are the channels and tools led and managed directly by the Institute itself, including scientific seminars, training workshops, and other similar initiatives.
- Training channels of the institutions comprising IIS-FJD. Within the framework of the Institute, these training tools are managed directly by one of the institutions that make up IIS-FJD, as is the case for undergraduate university education.

6.1. In-house training channels

The channels and tools that are managed and led directly by IIS-FJD are as follows:

- Specialised training courses.
- Workshops.
- Scientific seminars.
- Scientific meetings.
- Conferences.
- Microlearning modules.
- R&D&I awards.
- Mentoring and supervision programmes for early-career researchers and emerging research groups.

Specialised training courses

The main training modality available at IIS-FJD consists of a wide range of training courses designed to enhance the knowledge and skills of professionals, regardless of their training level or professional category. These courses may be aimed at undergraduate students, laboratory and support technicians, or established researchers. The topics covered may vary considerably, as may their duration and format (theoretical or practical).

Some of these courses are mandatory for all new members of staff joining the Institute. Their purpose is to provide basic knowledge of safety and protection measures relevant to the specific working environment in which they will operate, as well as the skills required to perform specific techniques for which officially regulated certification or training is required. The organisation and management of these specific courses primarily fall under the responsibility of the IIS-FJD Research Committee or of different departments within HUFJD, such as the Occupational Health and Safety Service.

Excluded from this category are all training courses included in the HUFJD continuing education programme, which is described later in the corresponding section.

Workshops

Training workshops are similar to training courses, but they have a predominantly practical focus. The content of these training initiatives focuses on the development of skills and competencies through hands-on learning, encouraging participants to carry out the assigned tasks themselves during the workshop.

These initiatives may sometimes be integrated into training courses, resulting in combined theoretical and practical training activities. The organisation of these workshops is the responsibility of the IIS-FJD Research Committee.

Scientific seminars

The scientific seminar programme encompasses a wide range of training initiatives, primarily aimed at expanding knowledge and promoting awareness of recent advances in specific scientific fields across a variety of disciplines.

Some of these seminars are intended for an internal audience and are aimed at the Institute's own professionals. They are organised in the form of general seminars and laboratory seminars.

- General seminars: aimed at all IIS-FJD staff. Speakers are usually researchers from the Institute or invited researchers from other institutions. These seminars are intended to showcase the knowledge generated at IIS-FJD while broadening participants' knowledge through the experience and expertise of other researchers. They are organised and managed by the IIS-FJD Research Committee and, on some occasions, by the researchers who propose the seminars themselves.

  A noteworthy initiative is the annual Seminar Series organised by the UC3M-CIEMAT-IIS-FJD Chair in Regenerative Medicine and Tissue Engineering. The series comprises several scientific lectures delivered by researchers of national and international standing.

- Laboratory seminars: these seminars are delivered by researchers and staff within the various laboratories and clinical departments and are primarily intended for their own members. Each laboratory establishes its own programme of activities, which are generally conducted internally within the unit. Although these seminars are organised and managed locally, the laboratories maintain a formal schedule and record of the training provided.

- "Margarita Salas" Predoctoral Research Seminars at IIS-FJD. This event consists of a series of seminars delivered by predoctoral researchers from our Institute. The aim of this initiative is to contribute to the training and development of our early-career researchers while also promoting the exchange of knowledge on ongoing research lines and doctoral projects among the Institute's research community.

Furthermore, there are seminar series and programmes designed to encourage greater participation from individuals outside the organisation, both as speakers and attendees. These programmes are usually organised in collaboration with other institutions, and the speakers are often highly distinguished scientists who are invited to IIS-FJD.

Scientific meetings

Scientific workshops are events with a duration ranging from half a day to a full day, encompassing a variety of training activities organised around a common theme. These workshops may include courses, practical workshops, presentations and other educational activities, and are held with the objective of deepening knowledge in a specific subject area.

At IIS-FJD, one of the main activities conducted under this format is the Annual Meetings of Research Areas and Research Groups, which bring together all researchers within the Institute in a single forum. These meetings provide an opportunity to strengthen synergies, identify potential collaborations, and propose joint development initiatives for implementation in the short term.

Other initiatives included under this category are:

- Welcome Day for IIS-FJD Research Staff, aimed at newly appointed members of the Institute. The purpose of this event is to introduce participants to the Institute's objectives, structure and organisation, its facilities, and the opportunities it offers for professional development.
- Open Days on Research for clinical researchers from HUGV, HUIE and HURJC hospitals.

Also included within this category are a variety of outreach activities organised by IIS-FJD for society as a whole and for different social groups, ranging from patient associations to primary, secondary and upper secondary school students who are introduced to the world of research through these events. These activities are primarily focused on science communication and outreach and are highly enriching both for the Institute's professionals and for participants. Particular mention should be made of the activities organised to mark the International Day of Women and Girls in Science, the Researchers' Night, and the Madrid Science and Innovation Week.

This training category also includes all workshops and events relating to specific diseases or specialised fields of knowledge.

Scientific forums

A forum is a meeting space where researchers come together to debate, discuss and share different perspectives and approaches on a specific research topic.

- Talks: Young Researchers, vents aimed at researchers in training (predoctoral researchers), serving as a forum where they can present the results of their work, rehearse their thesis defence...
- Postdoctoral Researchers' Dialogue Forum. It comprises a series of meetings among postdoctoral researchers from the different IIS-FJD research groups. These meetings are organised in the format of scientific seminars followed by discussions, questions and debate, with the aim of fostering synergies and promoting the exchange of experiences beyond purely scientific matters.

Conferences

A conference shares many similarities with scientific workshops; however, it typically has a longer duration, ranging from one to several full days. The activities included in a conference are like those featured in workshops and may include seminars, workshops, presentations of scientific results, and other related activities. The extended duration of these events makes it possible to accommodate a larger number of participants and to provide more extensive training and knowledge-sharing opportunities.

Microlearning modules

Microlearning modules are very short training sessions (typically between 15 minutes and one hour) in which instructors provide training on a highly specific aspect of a particular field of knowledge.

Due to their short duration, a microlearning module cannot be considered formal training. However, several microlearning modules may be combined to create a broader and more comprehensive training programme.

Typical topics delivered through this format include literature searching and specific aspects of innovation, such as:

- Publication databases.
- Bibliographic search strategies.
- Research results protection mechanisms.
- Patent application procedures.

R&D&I awards

One of the mechanisms used to encourage professional development, particularly among those at an earlier stage of their scientific careers, is the awarding of R&D&I prizes that promote the further development of research initiatives.

Currently, IIS-FJD includes this initiative among its activities for predoctoral researchers. Once a year, an award is announced for researchers who defended their doctoral thesis during the previous year, recognising excellence in research activity as reflected in the successful completion and defence of a doctoral thesis.

The award in each category (clinical biomedical and experimental biomedical) is primarily scientific in nature. Therefore, the following aspects are assessed: the quality and scientific relevance of the research carried out, the quality of the publications resulting from the research, and their biomedical impact on the institutions comprising IIS-FJD.

Mentoring and supervision programmes for early-career researchers and emerging research groups

IIS-FJD has identified several emerging researchers and research groups with significant potential and capacity for scientific development in the coming years. Recognising the importance of providing support to ensure their successful consolidation in the short and medium term, the Institute has developed an **Emerging Research Groups Mentoring Plan**, the main objective of which is to provide these researchers with the tools and initiatives necessary to foster their scientific growth and development.

Among the actions included in this Plan are training activities aimed at enhancing their skills, competencies and knowledge. Some of the topics covered through this training channel include the following:

- Biostatistics.
- Statistics for basic research projects, including database development, statistical analysis in animal studies, the use of non-parametric statistics, and related topics.
- Research methodology, epidemiology and public health.
- Clinical research.
- Good Clinical Practice (GCP) guidelines and clinical trial development.
- Training in research integrity.

Mentoring Plan for IIS-FJD Researchers in Training

IIS-FJD has developed this Plan to formalise and monitor the mentoring process for researchers in training, particularly those at the early stages of their doctoral studies, by establishing a defined number of tutor–student meetings each year.

6.2. Training channels of the institutions comprising IIS-FJD

The channels and tools that are managed by one of the institutions comprising IIS-FJD, or by collaborating organisations, are as follows:

- Undergraduate degree programmes.
- Postgraduate programmes: master's degrees and doctoral programmes.
- Training placements.
- Training courses.
- Access to research training contracts.
- Aula Jiménez Díaz.
- Predoctoral and mobility grants from the Conchita Rábago Foundation.
- Jiménez Díaz Memorial Lecture.

Undergraduate degree programmes

The beginning of a scientific career is grounded in undergraduate education through university training. To support this pathway, the Autonomous University of Madrid (UAM), the principal strategic partner of HUFJD, offers a range of Health Sciences degree programmes, including the following:

- Bachelor's degree in Medicine.
- Bachelor's degree in Nursing.
- Bachelor's degree in Biology.
- Bachelor's degree in Biochemistry.
- Bachelor's degree in Biotechnology.
- Bachelor's degree in Physiotherapy.
- Bachelor's degree in Human Nutrition and Dietetics.
- Double bachelor's degree in Human Nutrition and Dietetics and Food Technology.
- Bachelor's degree in Psichology.
- Bachelor's degree in Chemistry.
- Bachelor's degree in Occupational Therapy.

The bachelor's degree in biomedical engineering, offered by the UAM School of Engineering, is also included.

It should be noted that, for students enrolled in the Medicine Degree programme at HUFJD, a research training pathway is available. This pathway consists of a few credits and specific courses focused on R&D&I training, including

- Introduction to biomedical research.
- Epidemiological research.
- Clinical bioethics.

- Experimental clinical research.

These courses are complemented by the Undergraduate Final Project (in Spanish, TFG), which has an experimental component and may be carried out in IIS-FJD research laboratories by students affiliated with HUFJD.

The participation of University Hospitals, and particularly of their research bodies, is essential for the implementation of these programmes. IIS-FJD already plays a very active role in this process. In fact, many members of the Institute have participated in the teaching of the courses described above for the third and fifth years of the programme, which are already being delivered.

To further strengthen this collaboration, the Agreement of the 31st of October of 2023 between the Autonomous University of Madrid (UAM) and Fundación Jiménez Díaz-UTE for the use of this healthcare institution in university teaching and research was published in the Official Gazette of the Community of Madrid (BOCM) on February 10th, 2024.

On January 30th, 2024, an agreement was signed between the Autonomous University of Madrid (UAM) and the Fundación Jiménez Díaz Health Research Institute Foundation to develop an educational cooperation programme aimed at supporting external placement activities, as well as Undergraduate Final Projects (TFGs) and master's Theses (TFMs) associated with any degree programme delivered by UAM, whether official or institution specific. This excludes degree programmes and subjects related to Health Sciences, which are governed by the Agreement.

In addition to its collaboration with UAM, IIS-FJD has established collaboration agreements with other universities, primarily based in the Madrid region, including both public and private institutions, such as the University of Alcalá, Alfonso X el Sabio University, Complutense University of Madrid, European University of Madrid, Technical University of Madrid, CEU San Pablo University, Rey Juan Carlos University, among others. Similar agreements have also been established with universities from other autonomous communities, including the University of Barcelona.

Postgraduate studies: master's and doctoral programmes

The implementation of the European Higher Education Area (EHEA, in Spanish EEES) in Spain has led to the development of new master's degree programmes to ensure full alignment with the common European higher education framework for students who have completed their undergraduate studies. Within this new regulatory framework, a wide range of doctoral programmes has also been established, with organisational structures and planning and monitoring mechanisms specifically designed for this type of study.

IIS-FJD contributes to postgraduate education and training at three different levels:

1. IIS-FJD researchers teach several courses within master's degree programmes organised by UAM and other universities. IIS-FJD researchers contribute as lecturers to the following official and institution-specific master's programmes:
    a. Master's degree in Molecular Biomedicine, Faculty of Medicine, UAM.
    b. Master's degree in Advanced Patient Care in Anaesthesia, Critical Care and Pain Management, Faculty of Medicine, UAM.
    c. UAM Institutional Master's degree in the Management and Care of Patients with Vascular Access Devices.
    d. Master's degree in Infectious Diseases and International Health: Tropical Neurology, Faculty of Medicine, UAM.
    e. Master's degree in Genetics and Cell Biology, Faculty of Medicine, UAM.
    f. Master's degree in Pharmacological Research, Faculty of Medicine, UAM.
    g. Doctoral programme in Biochemistry, Molecular Biology, Biomedicine and Biotechnology (Molecular Biosciences), Faculty of Medicine, UAM: programme awarded the Ministry of Education Quality Distinction.
    h. Doctoral programme in Pharmacology and Physiology, Faculty of Medicine, UAM: programme awarded the Ministry of Education Quality Distinction.
    i. Master's degree in Molecular Biomedicine, Biotechnology and Molecular and Cellular Biology, Faculty of Medicine, UAM.
    j. Master's degree in Biochemistry, Molecular Biology and Biomedicine, Faculty of Chemical Sciences, Complutense University of Madrid (UCM).

k. Master's degree in Health Analysis, Faculty of Pharmacy, Complutense University of Madrid (UCM).

l. Master's degree in Molecular Oncology, Faculty of Medicine, Rey Juan Carlos University (URJC).

m. Expert master's degree in Bioethics, University of Granada.

n. Official master's degree in Bioinformatics and Data Science in Personalised Precision Medicine and Health, organised by the Carlos III Health Institute (ISCIII).

o. Master's degree in Regenerative Medicine and Advanced Therapies, CEU San Pablo University.

p. Doctoral programme in Biochemistry, Molecular Biology and Biomedicine, Complutense University of Madrid (UCM).

2. IIS-FJD researchers act as supervisors of Master's Thesis Projects (TFMs) undertaken by students enrolled in a variety of master's programmes, both at UAM and at other universities. Each year, IIS-FJD receives applications from students in the final stage of their Master's studies, as well as requests from the universities delivering these programmes to carry out their TFMs in our research laboratories under the supervision of IIS-FJD researchers.

3. IIS-FJD researchers supervise doctoral theses conducted within the Institute. Throughout the doctoral training period, from enrolment at the corresponding university until the public defence of the thesis, students are considered researchers in training at IIS-FJD. On average, around 30 doctoral theses supervised by IIS-FJD researchers are defended each year at different universities, covering both clinical and preclinical research. In addition, the Research Committee announces an annual award for the best clinical and experimental doctoral theses completed at IIS-FJ.

Training placements

HUFJD and the Fundación Jiménez Díaz Health Research Institute (IIS-FJD) have training responsibilities arising from their agreement with the Autonomous University of Madrid (UAM) for the education of undergraduate and postgraduate students; their accreditation by the Ministry of Health for the training of specialists in Health Sciences; their commitments regarding continuing professional development for their own specialists; the accreditation of IIS-FJD by the Carlos III Health Institute (ISCIII), with the corresponding training requirements for personnel associated with the Institute; and their training agreements with various universities and educational institutions. In this regard, IIS-FJD has approved regulations governing training placements within HUFJD and IIS-FJD. These regulations are aligned with the applicable legislation and institutional policies, as well as with the quality standards that guide the management of educational activities. Their purpose is also to inform interested parties of the procedures and requirements necessary for these training experiences to take place. In addition, IIS-FJD has established a procedure for processing training placements undertaken by research staff at national and international institutions.

Through these placements, the Institute aims to support the training of undergraduate students, students enrolled in postgraduate university programmes, residents undertaking their specialist training programme in Spain, residents or specialists working abroad, Health Sciences specialists employed in Spanish institutions, graduates or Health Sciences specialists seeking to further their training in innovative techniques, as well as individuals undertaking short-term training placements.

Training courses

Training courses aimed at IIS-FJD professionals are not only promoted by the Institute's own management structure. Some of these courses form part of the HUFJD Continuing Professional Development Programme. Through this programme, professionals have access to a range of institutionally supported courses designed to enhance their competencies and skills across different areas, including the scientific field.

Access to research training contracts

IIS-FJD employs both contracted research staff and research fellows. Within the framework of funding schemes supported by the National R&D&I Plan, IIS-FJD hosts and co-funds personnel participating in various programmes managed primarily by the Ministry of Science, Innovation and Universities, the Carlos III Health Institute (ISCIII), and other foundations and institutions.

Main funding schemes for researchers in training:

Ministry of Science, Innovation and Universities:

- FPI predoctoral contracts (research personnel training).
- FPU predoctoral contracts (university teacher training).
- Postdoctoral contracts for early-career researchers through the "Juan de la Cierva" programme.
- Postdoctoral fellowships for established researchers through the "Ramón y Cajal" programme.

Carlos III Health Institute (ISCIII):

- Predoctoral Research Training Contracts (PFIS), linked to a recently awarded project funded under the National R&D&I Plan.
- Industrial Predoctoral Research Training Contracts (i-PFIS), aimed at doctoral projects carried out through collaborations between accredited Health Research Institutes and companies with technological interests in the Health Sciences.

Community of Madrid:

- Predoctoral research contracts.
- Industrial doctorate grants.

Aula Jiménez Díaz

Face-to-face theoretical teaching is expected to be progressively replaced by distance learning delivered through Information and Communication Technologies (ICTs). Traditional lectures, as

well as presentations and talks given at conferences, symposia and workshops, are easily forgotten and cannot be revisited. E-learning makes it possible to:

- Reinforce and review content to achieve higher levels of learning.
- Promote interactive learning that helps to consolidate key concepts.
- Expand the reach of educational initiatives, enabling them to benefit a much larger audience.
- Update educational content relatively easily and at low cost.
- Eliminate the costs associated with travel, accommodation and time away from work that are typically required for face-to-face training.
- To better adaptate course participation to learners' time availability and schedules.

For this reason, HUFJD has invested in the development of an online learning platform known as "Aula Jiménez Díaz" (http://www.aulajd.com), designed for all individuals for whom it has educational and training responsibilities.

Conchita Rábago Foundation Grants

Since its establishment in 1969, the Conchita Rábago Foundation has maintained two grant programmes: one aimed at the training of predoctoral researchers at HUFJD, and another mobility grant programme for HUFJD physicians, enabling them to undertake placements at other national and international institutions in order to further their training and subsequently apply the knowledge and experience gained within the Institution.

Predoctoral grants are awarded to support the development of funded competitive research projects and are intended for postgraduate graduates carrying out their research at HUFJD. These grants are initially awarded for one year and may be renewed for up to three years, after which beneficiaries are expected to submit and defend their doctoral thesis.

Jiménez Díaz Commemorative Lecture

The Conchita Rábago Foundation holds the annual "Jiménez Díaz" Memorial Lecture to recognise the contributions of a distinguished international figure in medicine or biomedical research. The award recipient delivers a keynote lecture in the Main Auditorium of Fundación Jiménez Díaz, accompanied by renowned researchers who take part in a Symposium held as part of the event.

In 2024, the 55th edition of the "Jiménez Díaz" Memorial Lecture was held, reflecting the long-standing tradition and significance of this initiative within HUFJD and IIS-FJD.

7. EVALUATION AND MONITORING OF THE TRAINING PLAN

The Institute's training portfolio is subject to systematic evaluation. The evaluation of training activities aims to assess the quantity, quality and diversity of the initiatives delivered, as well as the capacity to develop and enhance future activities. This process includes the assessment of training content, available resources and facilities, and all other relevant aspects associated with the delivery of the training programme.

The Training Plan is evaluated on an annual basis, independently of the evaluation carried out for each individual training activity. The evaluation of the Plan focuses on its structure, the processes followed, and the educational outcomes achieved.

The revision of the Plan takes into consideration the views and identified needs of all relevant groups through satisfaction surveys and training needs assessments. Consequently, successive annual reviews and updates incorporate improvements that contribute to meeting the expectations and needs of IIS professionals.

The following evaluation indicators are considered:

A. Training activity indicators:

- Total of training activities organised by IIS-FJD and delivered during the year.
- Total of researchers in training (R1), both annually and over the previous five years.
- Total of activities focused on science communication skills aimed at individuals without a research profile during the past year.
- Total of training activities on mechanisms for the translation of research into clinical practice.
- Total of training activities on participation and co-creation in scientific research, or other approaches aimed at opening research participation to key non-scientific stakeholders.
- Total of doctoral and master's programmes involving the participation of IIS-FJD researchers.
- Total of doctoral and Master's programmes coordinated by IIS-FJD researchers, both annually and over the previous five years.

- Total of students enrolled in the programmes listed in the previous section.
- Total of affiliated faculty members.
- Total of associate faculty members.
- Total of doctoral theses supervised and defended per year and over the previous five years.

B. Mobility indicators:

- % of researchers who have completed a placement of at least two months at international institutions per year and over the previous five years.

C. Technical staff training indicators:

- Total of specialised technical training activities delivered to professionals working in research support units, measured annually and over the previous two years.

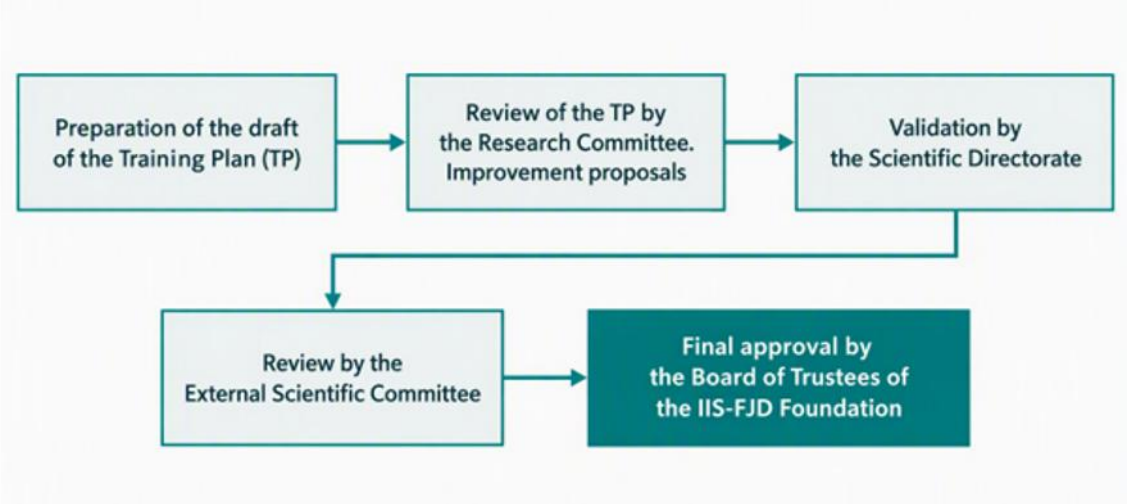
D. Technical staff training indicators:

- Total of specialised technical training activities aimed at administrative and management staff, measured annually and over the previous two years.

IIS-FJD will establish and annually publish the specific list of training activities to be delivered throughout the year, together with their planned start dates, as this information becomes available. To this end, the Institute maintains a training calendar on its website, where all planned and delivered training activities are scheduled and recorded (https://www.fjd.es/iis-fjd/es/formacion-empleo/plan-formacion). In addition, information on scheduled activities is available through the Internal Communication Portal (SharePoint), which can be accessed using a personal username and password.

7.1. Review and approval process for the Training Plan

The process to be followed upon completion of the 2024–2028 Training Plan, for the development of the subsequent Training Plan, will be as follows:



8. COMMUNICATION CHANNELS

Once the Plan has been approved, its contents are communicated to all members of IIS-FJD through the following channels for general information:

- Distribution lists via email.
- IIS-FJD website.
- IIS-FJD Intranet: Internal Communication Portal (SharePoint).
- Posters.
- Specific section within the Welcome Handbook.
- HUFJD and Quirónsalud Group intranet.

Any subsequent revisions and improvement proposals implemented will receive the same level of dissemination and publicity as the original Plan.

9. SUPPORTING DOCUMENTATION

- Training needs assessment questionnaire (CORP 2.3/P1/F1).
- Template for minutes of research area meetings.
- Regulations on training placements.
- Records of workshops and seminars.
- Records of activities aimed at civil society.
- Innovation training.