



**ISTITUTO DI RICERCHE
FARMACOLOGICHE
MARIO NEGRI · IRCCS**

**Gender Equality Plan
Version no. 1
31st December 2021
for the period 2022-2024**

The present document describes the actions currently undertaken and planned to address the gender dimension in the Istituto di Ricerche Farmacologiche Mario Negri IRCCS together with their endorsement by the management level.

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Introduction

The Institute

Founded in 1963 as a non-profit organisation, the Istituto di Ricerche Farmacologiche Mario Negri IRCCS (“Mario Negri Institute”) operates in the field of biomedical research. The activities regard three main objectives: carrying out scientific research projects, training young people and disseminating the results of its research at all levels (Research, Training, Dissemination). The Mario Negri Institute bases its activities on independence, fidelity to the scientific method and respect for ethical rules.

The Manifesto “Contributing to defending health and human life” underlines the following values:

- **Independence** - The Institute does not patent its discoveries, remaining independent from the pharmaceutical industry, the state administration, universities, politics, finance and religious ideologies. The institute’s research and discoveries are freely available to all – the scientific community, patients and the general public – guaranteeing the greatest possible levels of collaboration without the need for compromises due to confidentiality agreements and data secrecy issues.
- **Authenticity** - The Institute has never departed from the founding principle of serving the public interest: it continues to share and grant full access to its scientific research and be completely transparent in the management of the intellectual property rights to its discoveries.
- **Integrity** - As an independent actor, the Institute operates with the utmost freedom of initiative and action. It is under no obligation to comply with profit-making principles and works with the typical efficiency of private organisations while, however, serving the public interest.
- **Publication Information** - The Institute contributes to disseminating scientific results and information through various initiatives and tools. It continuously informs the scientific community of new developments and breakthroughs; maintains a close relationship with citizens (especially patients) by sharing information on the use of pharmaceuticals and updates them regularly on matters involving scientific research and health.
- **Philanthropy** - The Institute was established thanks to Mr. Negri’s generosity and that of several other philanthropists who followed him in supporting the Institute. His example and dedication to the values underpinning science have become an indispensable point of reference for our mission.

Gender in the Mario Negri Institute

The Mario Negri Institute has supported the formulation of the Gender Equality Plan (GEP) internal to the organisation.

The GEP describes the actions undertaken to follow the guidelines of the European Institute for Gender Equality (EIGE) aiming to “identify and implement innovative strategies to promote cultural change and equal opportunities in Universities and Research Centers”¹.

The Institute doesn't consider the GEP an obligation or cost but a valuable opportunity to promote career-development of female and male researchers to prevent the waste of talents. In addition, the GEP aims at improving decision-making by addressing gender imbalances, addressing sex and gender dimension in research and increasing gender culture awareness.

The gender dimension in medicine

The terms sex and gender are distinct. Sex refers to the biological characteristics that distinguish males and females - internal and external morphology, chromosomal makeup, hormonal characteristics. Gender, on the other hand, refers to behaviours, roles, expectations and activities carried out by the individual in society. In other words, gender refers to a sociocultural sphere of the individual.

For many years, evidence-based medicine, guidelines and experimental research have referred to information derived from studies done mainly on male samples. This situation is constantly changing in the scientific community. In recent years, epidemiological, clinical and experimental data have shown significant differences in the development, progression and clinical signs in pathologies affecting men and women; interesting results showed differences regarding drugs adverse events, response to treatments, nutrients, and lifestyles.

The Institute has a long tradition in gender medicine and gender is increasingly considered in preclinical studies and clinical practice across the various disciplines.

The method of collecting and evaluating epidemiological data analysed on the basis of sex is fundamental for the understanding of gender differences in symptoms, prognosis and response to therapies. It is also of fundamental importance to pay attention to the aspects related to sex and gender in all phases of research, both clinical and experimental: planning, processing of the collected data, interpretation of the results and communication of the research results.

Gender medicine is an intrinsic interdisciplinary dimension aimed to study the influence of sex and gender on human physiology, pathophysiology and pathology in men and women. Gender medicine does not only study pathologies related to the reproductive organs or diseases that have a different prevalence by sex but gender medicine also studies pathologies that afflict men and women in everyday life.

The effects of sex/gender on physiology, pathophysiology and pathology as well as on treatment response are of interest in each disease area. These areas range from the study of gender-specific

¹ EIGE, <http://eige.europa.eu>

lifestyles and behaviour, to the development of new technologies - medical devices, diagnostic, prognostic and predictive tests, digital health tools -, as well as to the identification of new gender-specific therapies. Gender also accounts for major differences in access to healthcare. Together with the scientific discussion, the legal and ethical issues are receiving a growing interest. According to the World Health Organization (WHO) gender medicine, or rather gender-specific medicine, is defined as the study of how (sex-based) biological and (gender-based) socioeconomic and cultural differences influence people's health. Major international bodies, including European institutional bodies, have recommended that biomedical, pharmacological and psycho-social research activities take into account gender differences.

The dissemination and development of gender medicine is the condition for identifying and transferring new sex/gender-specific technological tools and medicines into healthcare practice.

Working group and resources

A working group on Gender Equality Policy (GEP) was appointed by the Board of Directors in 2021. The group involves persons with different expertise, career stages, sex, ages, and familial conditions and consists of the following :

- Raffaella Giavazzi, Research Coordinator in Milan;
- Ariela Benigni, Research Coordinator in Bergamo;
- Paola Mosconi, head of laboratory in the Public Health department;
- Alessandra Roncaglioni, head of laboratory in the Environmental and Health Sciences department;
- Jennifer Meessen, researcher in the Cardiovascular Medicine department;
- Olimpia Diadei, researcher in the department of Renal Medicine;
- Vittorio Castiglioni, head of the office for Driving Innovation in Science and Technology;
- Antonella Grazioli, Manager of Human Resources.

The task of this working group is to propose actions to recruit and retain more women in the scientific staff, develop initiatives aimed at achieving gender equality, and promoting the integration of the gender dimension in research.

The budget to support the work on the gender dimension and equality and to provide an economic capacity to take practical actions (e.g.: organization of training, support of specific implementation actions of the GEP) will come from the indirect costs of all the projects requiring the GEP as a mandatory document.

Analysis of the current situation

Legislative framework

The GEP of our Institute has his basis in the current legislative framework. The current Italian legislation on gender issues is more focused on public bodies, for instance:

1) *Legislative decree 11/04/2006 n. 198*: it requests that public administration as well as universities and research organizations adopt policies to remove any obstacles on gender parity in order to:

- eliminate inequality in employment and career advancements;
- favour the recruitment of women in areas where women are underrepresented;
- overcome any conditions which might create disparity between sexes.

2) *Law 30/12/2010 n. 240*: intends to improve the efficiency of the public administration by creating an environment that safeguards equal opportunities, eliminates discrimination and violence for employees.

3) *Directive n. 2/2019 of the Council of Ministers*: it contains guidelines aimed at promoting equal opportunities as specified in *Decreto legislativo 11/04/2006 #198*. These include the “PAP” (*Piano delle Azioni Positive* – Plan for positive actions) to consider the principle of equal opportunities in the recruitment and management of personnel.

There are also a number of EU directives relevant for this theme such as:

- 1) Directive on equal pay (75/117/EEC),
- 2) Directive on equal treatment of in employment (76/207/EEC, 2002/73/EC & 2006/54/EC),
- 3) Directive on equal treatment social security (79/7/EEC, 86/378/EEC, 96/97/EC & 2006/54/EC),
- 4) Directive on equal treatment in an activity (86/613/EEC, 2010/41/EU),
- 5) the Pregnant Workers’ Directive (92/85/EEC),
- 6) the Parental Leave Directive (96/34/EEC, 2010/18/EU),
- 7) Directive on equal access to and the supply of goods and services (2004/113/EC),
- 8) Part-time Work Directive (97/81/EC),
- 9) Racial Equality Directive (2000/43/EC),
- 10) Employment Equality Directive (2000/78/EC).

Analysing sex-disaggregated data

Gender distribution in the Institute

Since its beginning in 1963, the Institute has always had a strong female presence (as shown in figure 1 representing a picture from that period).



Figure 1 - Picture of the staff recruited to work in the Mario Negri Institute in the '60s with a large prevalence of females.

In 2021, 65.6% of the Institute employees were female. Table 1 reports details about this distribution over the last three years. The institute over the last three years has a prevalence of female employees in both the research and administrative/research support areas, well represented across all groups (young researcher, students, etc.). See for instance table 2 reporting the data about younger staff. A separate paragraph will evaluate the hierarchical distribution by gender.

Table 1 – Prevalence of female staff in the last three years.

| | 2021 | | | 2020 | | | 2019 | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Total | ♂ | ♀ | Total | ♂ | ♀ | Total | ♂ | ♀ |
| Scientific staff | 571 | 35.9% | 64.1% | 560 | 34.8% | 65.2% | 542 | 37.1% | 62.9% |
| Administrative / research support | 109 | 26.6% | 73.4% | 111 | 25.2% | 74.8% | 113 | 26.5% | 73.5% |

Table 2 – Female presence among staff aged <40 years in the last three years.

| | 2021 | | | 2020 | | | 2019 | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Total | ♂ | ♀ | Total | ♂ | ♀ | Total | ♂ | ♀ |
| Scientific staff | 346 | 31.8% | 68.2% | 334 | 29.9% | 70.1% | 312 | 32.4% | 67.6% |
| Administrative / research support | 26 | 38.5% | 61.5% | 26 | 30.8% | 69.2% | 24 | 29.2% | 70.8% |

Gender distribution by categories (contract type, hierarchical status, salary, etc.)

A comparison of categories associated to the contract framework is reported in table 3, where the distribution of sexes for scientific and administrative/management staff are reported. Differences by sex per category exist, however upon assessing the contractual category within the sexes (see figure 2), these differences are smaller.

Table 3 – Distribution of contractual categories by sexes (percentage by row) as on 31/12/2021.

| Scientific staff | | | | Administrative/Research support staff | | | |
|------------------|-------|----------|----------|---------------------------------------|-------|---------|----------|
| Category* | Total | ♂ | ♀ | Category* | Total | ♂ | ♀ |
| Q | 33 | 18 (55%) | 15 (45%) | Q | 1 | 1(100%) | 0 |
| 1 | 34 | 10(30%) | 24 (70%) | 1 | 6 | 3 (50%) | 3 (50%) |
| 2 | 64 | 24 (37%) | 40 (63%) | 2 | 13 | 7 (54%) | 6 (46%) |
| 3 | 42 | 16 (37%) | 26 (63%) | 3 | 48 | 7 (15%) | 41 (85%) |
| 4 | 17 | 2(11%) | 15(89%) | 4 | 5 | 2 (33%) | 3 (67%) |
| 5 | 4 | 0 | 4 (100%) | 5 | 12 | 5 (42%) | 7 (58%) |

* Q is the highest level.

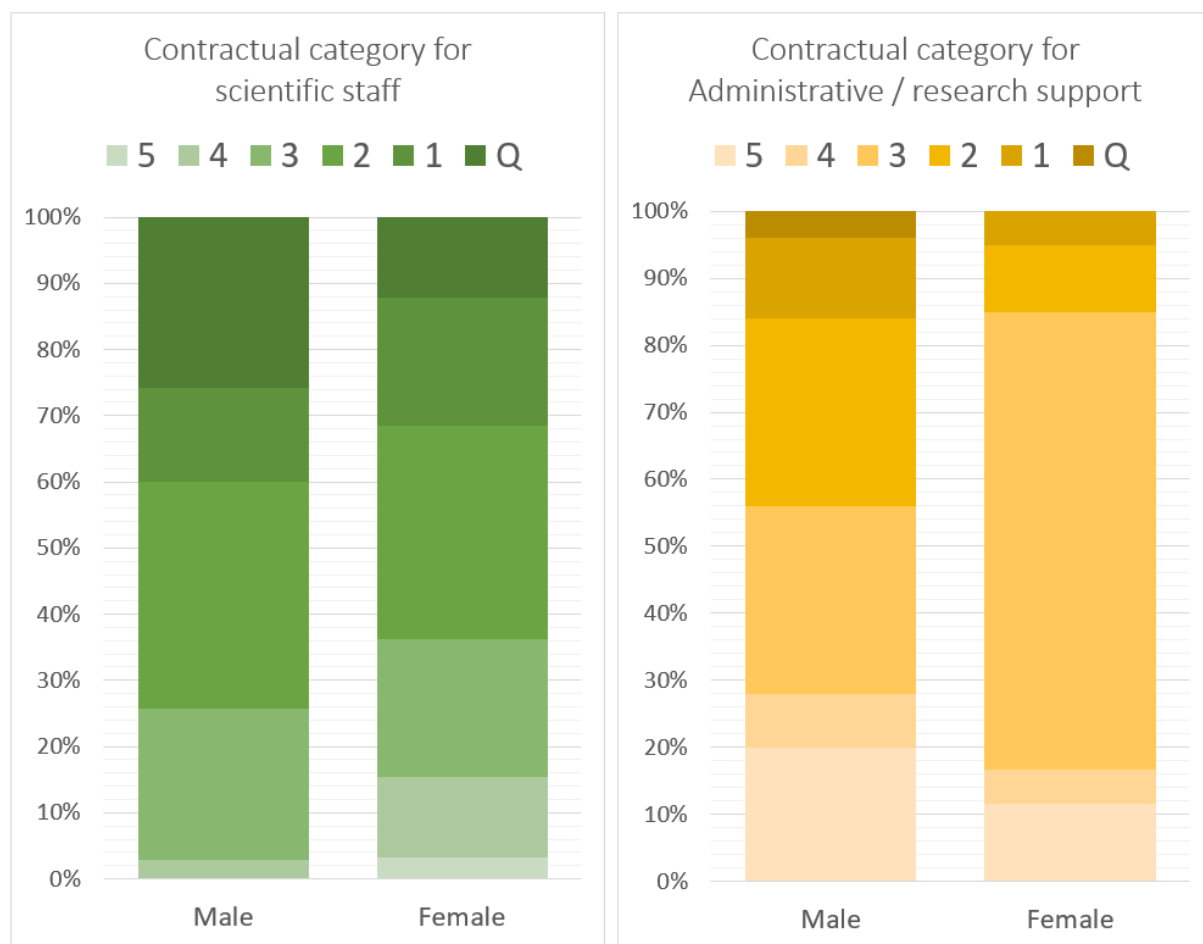


Figure 2 – Distribution of contractual categories by gender. The figure represents percentage by column.

Table 4 reports a comparison of salary differences by gender and contractual category. Data are already corrected to account for working hours (part time is more frequently adopted by female staff). Differences are more pronounced in the lower level categories with slightly average salary lower for F than M.

Table 4 – Comparison of gross salary according to contract categories as on 31/12/2021.

| Scientific staff | | Administrative / research support | |
|------------------|---|-----------------------------------|---|
| Category* | (average salary M – average salary F) % | Category* | (average salary M – average salary F) % |
| Q | 8,96 | Q | = |
| 1 | 4,7 | 1 | 7,92 |
| 2 | 7,05 | 2 | 9,65 |
| 3 | 12,85 | 3 | 11,45 |
| 4 | 17,1 | 4 | 21,4 |
| 5 | = | 5 | 22,1 |

* Q is the higher level.

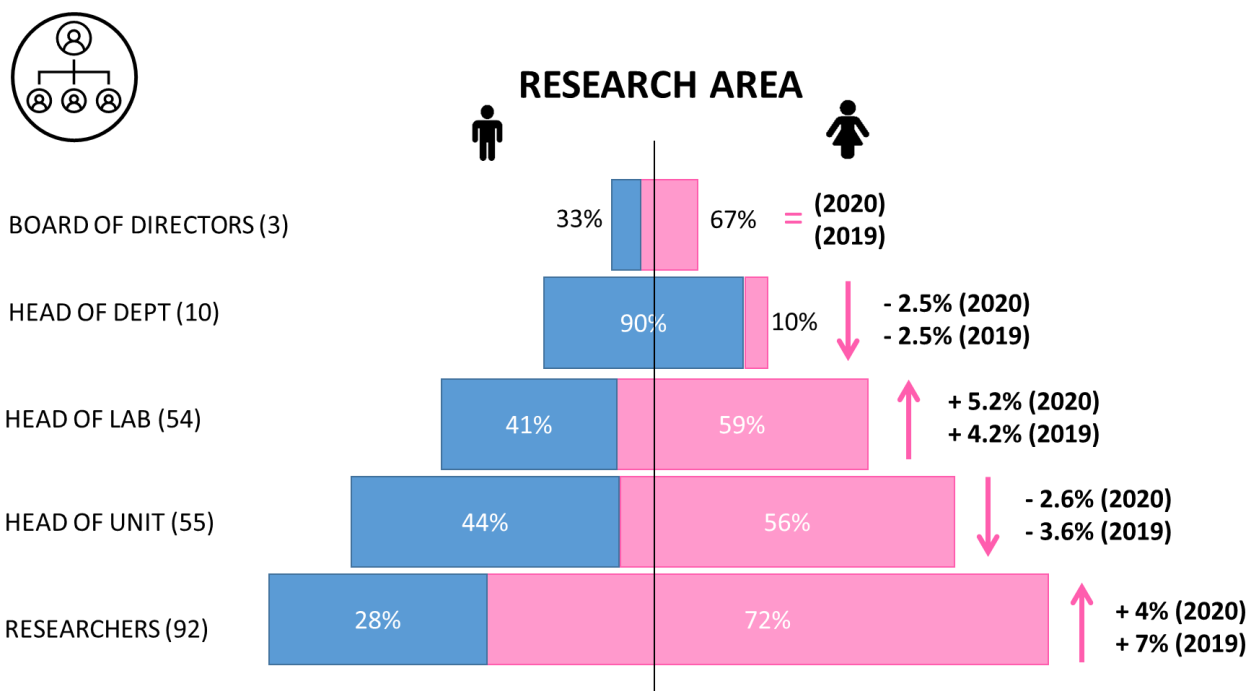


Figure 3 – Distribution by gender of the scientific staff according to its hierarchical role. Data refer to 2021. Arrows indicate the direction of variation compared to the prior two years.

Upon assessing the levels of management in the Mario Negri Institute we can see in figure 3 that the proportion of females is increased in the lowest level. The opposite is generally true in the upper echelons of the Institute: the proportion of females is diminish at the management levels (also considering the larger proportion of females present in the Institute) with the only exception of the top management level where there are two females and one male. The trend is increasingly more disbalanced: with an increased proportion of females in the lowest levels, and a stable proportion at the department level.

Gender dimension in research activities

No mayor differences are seen for the proportions of males (52%) and females (48%) contributing to scientific articles published in peer-reviewed journals. The reported proportions for 2021 have been stable since 2018 (see table 5).

Table 5 – Number of scientific articles published in peer-reviewed journals.

| | Publications | Total # authors | Male authors | Female authors |
|---------------------------------|--------------|--------------------------|--------------|----------------|
| 2021 (up to 09/12/21) | 496 | 1325 | 689 (52%) | 636 (48%) |
| 2020 | 484 | 1285 (15 sex missing) | 670 (52%) | 600 (47%) |
| 2019 | 430 | 1190 | 613 (52%) | 577 (48%) |
| 2018 | 377 | 1090 | 569 (52%) | 521 (48%) |
| 2017 | 407 | 1079 | 602 (56%) | 477 (44%) |

As for the number of projects which were submitted to obtain funding, of the 236 projects submitted in 2020, slightly more were submitted by males (55%) as compared to females (45%). In total, of the 236 projects submitted in 2020, 166 (70%) obtained funding of which a slightly higher percentage was granted to men than to women (see table 6).

Table 6 – Number of submitted and won grant applications.

| | Projects presented | | | Projects won | | |
|---------------------------------|--------------------|-----------|-----------|--------------|-----------|----------|
| | Total | Male | Female | Total | Male | Female |
| 2021 (up to 29/10/21) | 198 | 106 (53%) | 92 (47%) | 110 | 65 (59%) | 45 (41%) |
| 2020 | 236 | 130 (55%) | 106 (45%) | 166 | 96 (58%) | 70 (42%) |
| 2019 | 319 | 181 (57%) | 138 (43%) | 197 | 130 (66%) | 67 (43%) |
| 2018 | 306 | 154 (51%) | 152 (49%) | 145 | 79 (54%) | 66 (46%) |
| 2017 | 250 | 149 (60%) | 101 (40%) | 141 | 95 (67%) | 46 (43%) |

As for representation of both sexes in science, the Mario Negri Institute organizes weekly seminars in which the balance of sexes is guaranteed (table 7).

Table 7 – Seminars.

| | # seminars | # speakers | Male speaker | | Female speaker | |
|-------------|------------|------------|--------------|-----|----------------|-----|
| 2021 | 11 | 31 | 15 | 48% | 16 | 52% |
| 2020 | 21 | 21 | 14 | 67% | 7 | 33% |
| 2019 | 30 | 31 | 15 | 48% | 16 | 52% |
| 2018 | 45 | 49 | 25 | 51% | 24 | 49% |
| 2017 | 58 | 69 | 27 | 39% | 42 | 61% |

Current initiatives

At the Mario Negri Institute there is no discrimination based on gender, ethnicity or religion. The Institute has always been at the forefront in terms of the number of representativeness of women among researchers as introduced before, as well as involved in public initiatives in favour of STEM (science, technology, engineering, and mathematics) issues.

Currently the following initiatives implemented in the Mario Negri Institute to guarantee gender equality:

- Creation of a Board of Directors which include 2 females (Research coordinators) and 1 male (Director).
- Seminars: multiple seminars on the topic of gender equality have been conducted for which all employees of the Mario Negri Institute were invited. Recent examples include *“Not the science type Global Report on state of Science Index 2021”* presented by the 3M foundation on 07/10/2021 and *“The Gender Equality Plan”*, presented by legal studio Withers Worldwide in November 2021.

In addition the members of the GEP team of Mario Negri Institute participated on 4/11/2021 to a Webinar on *“Horizon Europe: Gender Equality Plan, Characteristics and Objectives”* organized by the Horizon Europe Competence Team.

- STEM (science, technology, engineering, and mathematics) initiative: in collaboration with local high schools a yearly event was created to educate students on science with specific emphasis on the role of females in science. Scientists of the Institute have participated in Events with the aim of disseminating STEM initiatives.
- Contact point (email service) to support pregnant women in the assessment of safety of drugs during the pregnancy.
- Periodic publication *“Io sai mamma”*, addressing childcare.
- PAP-test offered every year to female staff.

In order to identify any specific needs of employees of the Mario Negri Institute, an anonymous questionnaire will be proposed to collect the opinions of staff members on the gender issue, suggested measures to improve gender equality and possible contributors willing to help in the organization of practical projects.

Planned initiatives

According to the analysis of current situation, a first set of measures is proposed in this section setting a timeframe of 3 years. The following measures have been proposed to be implemented in the Mario Negri Institute, grouped by areas of interest. Specific data sheets will be available to implement and monitor specific actions:

- governance bodies, key actors and decision makers;
- recruitment, career progression and retention;
- work and personal life integration;
- researchers and research: gender equality and sex and gender perspective;
- integration of sex and gender dimension in teaching curricula.

Key area 1 - The governance bodies, key actors and decision-makers

Promote & create structures to support gender equality

| Action | Objective | Timeline |
|--|---------------------------------|----------|
| Appoint a “gender & diversity delegate” to monitor the adherence to GEP. This delegate will assess (at least once per year) gender disaggregated data to be integrated in the yearly GEP report. | Implementation of the GEP | 2022 |
| Routine revision of text, communication & images from a gender equality and diversity standing point. We intent to avoid gender-terms instead of using * in Italian. | Use inclusive language | 2022 |
| Yearly meeting for the discussion of the GEP with key-players such as board and management. | Support of GEP from management | 2022 |
| Creation of an anti-harassment centre for (anonymous) reporting of any harassment and/or discrimination. | Safe work environment | 2022 |
| Create a repository in the intranet to access GEP documentation. | Involvement in GEP of personnel | 2022 |

Key area 2 - Recruitment, career progression and retention

| Action | Objective | Timeline |
|---|--------------------------------|----------|
| Including gender balance as a criterion, every other conditions being equal in recruitment, working groups or scientific boards. | Increase gender representation | continue |
| Introduce flexible targets for proportion of (fe)males per career stage based upon the distribution on the level immediately below. | Increase gender representation | continue |
| For each kind of selection procedure or committee: at least 40% of the persons present in a committee are recommended to be of (fe)male gender. | Increase gender representation | continue |
| Developing an exit questionnaire for staff to understand the reasons for leaving the organization from a gender perspective | Understand shortcomings | 2022 |
| Advertising about grant applications with specific gender related eligibility criteria (e.g. L'Oréal-UNESCO for Women in Science Awards) | Highlight women in science | continue |

Key area 3 - Work and personal life integration

| Action | Objective | Timeline |
|--|-----------------------------------|----------|
| Reviewing the work and personal life integration measures that exist in the organization, analysing the use women and men make of them, how measures could be improved and what other needs workers might have to improve or propose new measures | Improve working culture | continue |
| Availability of flexible working times arrangements, from part-time to remote working (regulate smart working) | Support optimal work-life balance | 2022 |
| Implementation of ICT based systems to enhance flexibility and improving staff mobility. | Support optimal work-life balance | 2022 |
| Creation of an online repository for information regarding parental leave. | Inform personnel | continue |
| Organization of new welfare services, ex. contract arrangements with service suppliers for summer camp organization, to child-care in case of conference or congress, negotiate discounted rates for public transport, sport, free time, medical support | Support optimal work-life balance | 2023 |

Key area 4 - Integration of the gender dimension into research and teaching

| Action | Objective | Timeline |
|--|--------------------------------|----------|
| Internal training seminars on the use of sex and gender perspective in research. Example: sex specific cell lines | Gender in science | 2023 |
| Institutional recognition within the institute of dissertations that have considered sex/gender issues. Example ALUMNI prize devoted to this theme every three years. | Gender in science | 2022 |
| Development, communication and implementation of standards for the incorporation of sex and gender variables into research. Example: include in the registration form for scientific publications and in the data sheet for each project if gender was assessed, as to remember scientist to include this topic. | Gender in science | 2022 |
| Monitoring of all data regarding research disaggregated by gender: funding allocation, publications submission, excellence evaluation, by the gender delegate per department to be included in the yearly report. | Gender in science | 2022 |
| Ensuring research teams are gender balanced when possible. | Increase gender representation | 2022 |
| Raising awareness and enhancing visibility of female researchers as role models in institutional communication. | Highlight women in science | 2022 |
| Organising internal training workshops on the use of sex and gender analysis methods in Research. | Education on gender in science | 2023 |

Implementation and verification

This Gender Equality Plan has received full support from the top management of the Institute and will be distributed among employees by intranet as well as by a seminar attended by the employees.

In the first months of 2022 persons will be appointed per key area to assess and follow-up the practical implementation of the measures identified in this document and to prepare the specific data sheet for each project. According to the timeline of each action point the working group will verify periodically results and monitor any adjustments required to fulfil the original program.

If necessary, the GEP will be updated every two years according to the progress made and further needs identified.