IAEA initiatives for supporting the growth of the radiological protection workforce

Session: Organizational Initiatives: What's Being Done Today

ICRP WEBINAR: Shaping the Future of Radiological Protection: Engaging Next Generation

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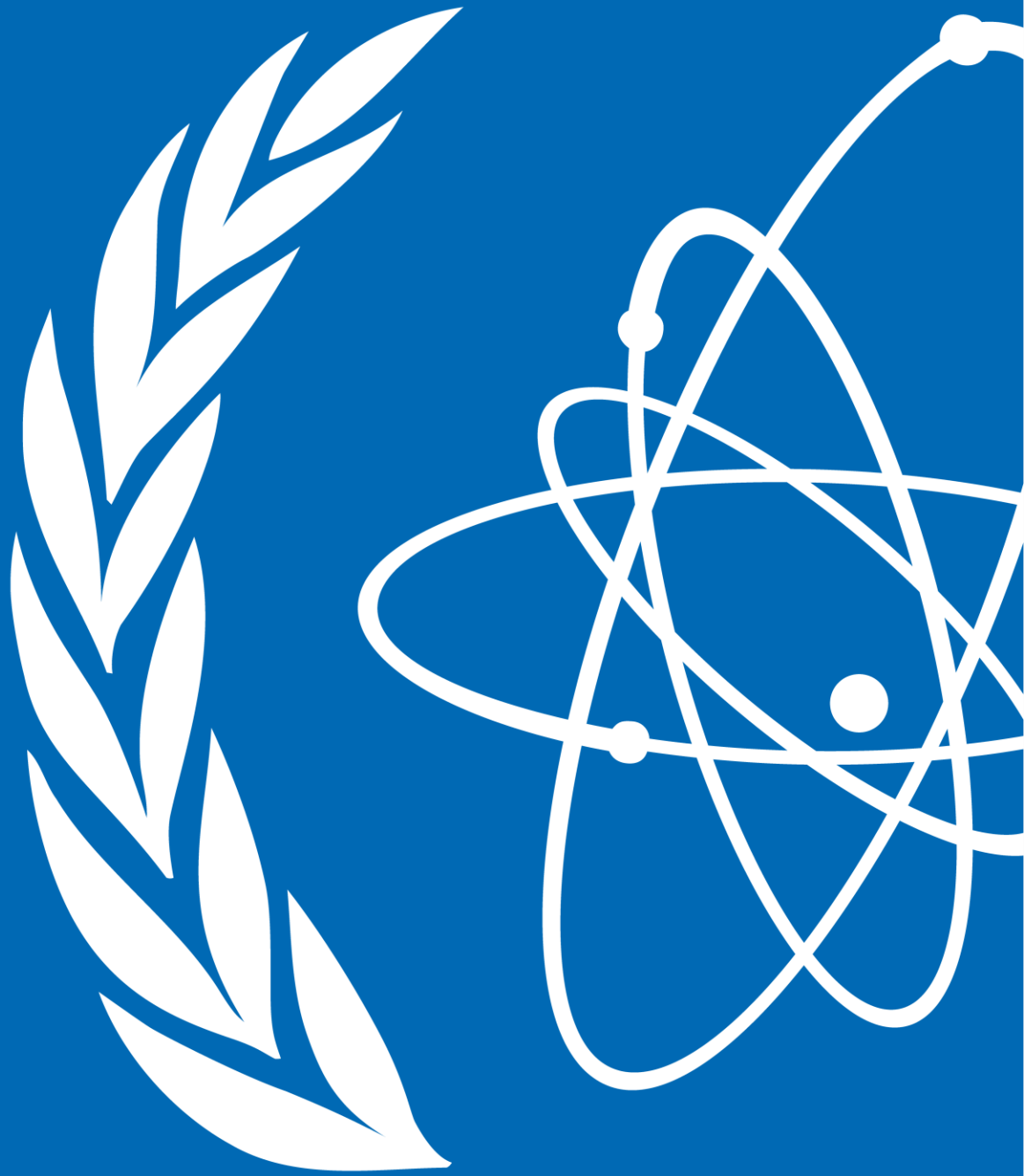


I Marie Sklodowska-Curie Fellowship Programme

- Programme aims to inspire young women to pursue careers in the nuclear field
- Launch in Vienna, Austria, 9 March 2020
- Provides scholarships for Master's programmes and internships facilitated by the IAEA
- **Scholarships for Master's programmes** in nuclear-related studies at accredited universities
- Scholarships awarded annually, at least 100 female students per year will be selected
- Selected students are awarded up to €20 000 for tuition costs and up to €20 000 for living
- costs for the Master's programme
- Selection considers field of study, geographic and linguistic diversity, and other factors
- Marie Sklodowska-Curie Fellowship Programme

Fields of study

These include, but are not limited to the following technical areas:

Nuclear Science and Applications

- Isotopic techniques, applied to human health, food and agriculture, biotechnology, and biophotonics, water resources, environmental
- Engineering and bioengineering
- Medical radiation physics
- Nuclear medicine
- Radiation oncology/radiotherapy
- Radiation biology
- Synchrotron radiation and applications

Nuclear Safety and Security

- Health physics
- Nuclear safety
- Nuclear security

Nuclear Energy

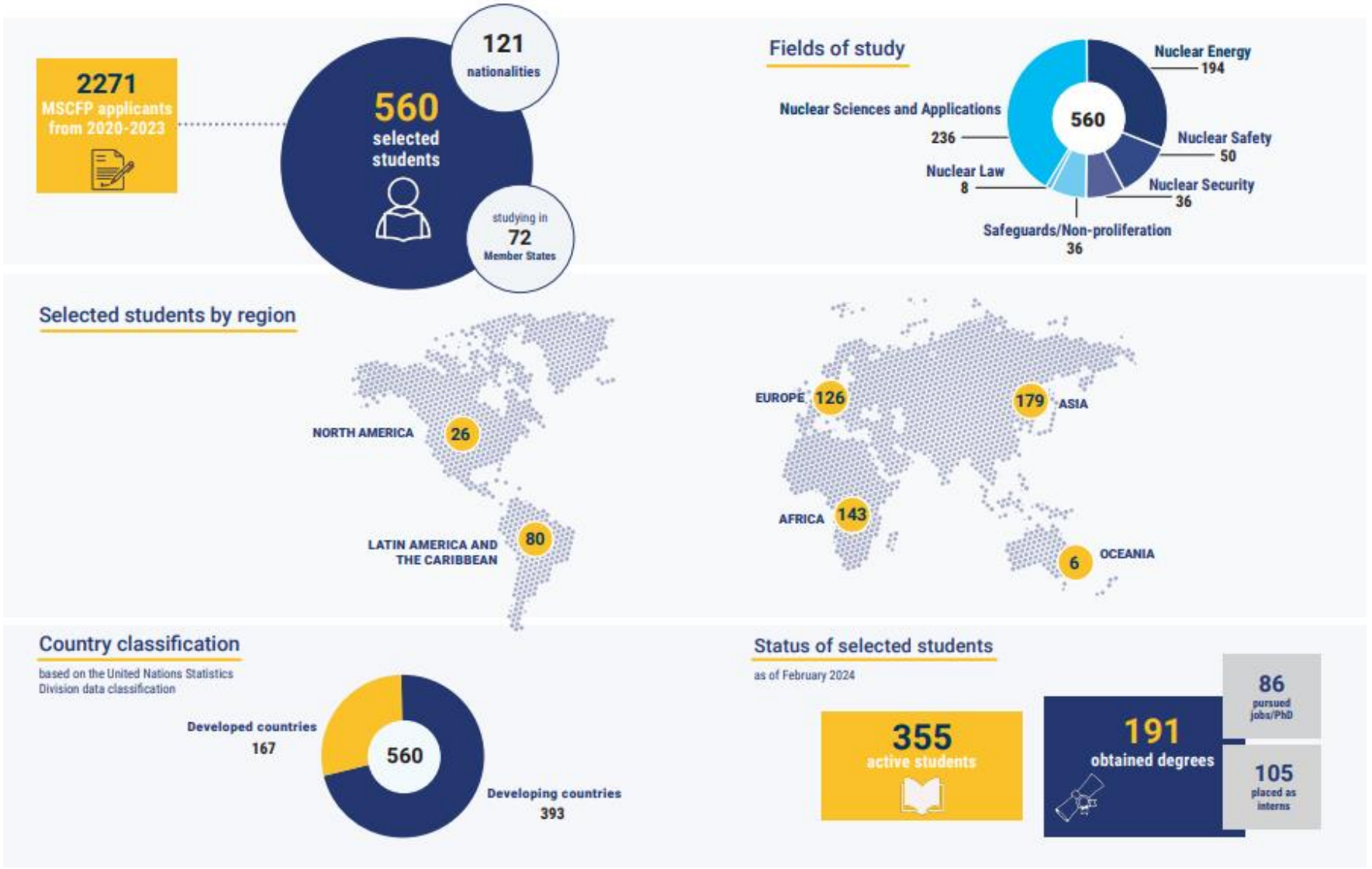
- Nuclear chemistry
- Nuclear engineering
- Nuclear physics

Non-Proliferation

- Arms Control & Disarmament
- Export Control
- Non-Proliferation

Programme partners: Universities | IAEA Collaborating Centres | Private companies | Other partner institutions

Impact by numbers



II Lise Meitner Programme

- The IAEA Lise Meitner Programme offers early and mid-career women opportunities to advance in the nuclear field through a multi-week (typically 2-4) **visiting professionals programme**
- No financial cost for participation
- Aims to boost career development in the nuclear energy sector
- Includes visits to various nuclear facilities, such as power plants, research reactors, scientific institutions and startups
- Tailored to participants' profiles and interests
- Provides networking opportunities with leaders and experts in the field
- Funded by extra-budgetary and in-kind contributions from IAEA Member States and other donors
- Lise Meitner Programme

Lise Meitner Programme

Objectives

To increase opportunities for women to develop and sustain their **careers in the nuclear sector** and to participate and contribute at **managerial and leadership levels**, including as role models for future generations. Participants take part in activities aimed at developing both their **technical and soft skills**

Programme details

Selected participants **visit nuclear facilities in IAEA Member States**, including facilities under construction, operation or decommissioning, research centres, scientific institutions, laboratories, the industrial sector and companies.

The programme includes:

- Onsite lectures and discussions
- Training in project development and implementation
- Laboratory analysis, testing and measurements
- Modelling and simulations using advanced computer codes or simulators

Why these initiatives are important?

- As the world faces climate change, growing populations, food insecurity, and increased energy demand, a qualified workforce is crucial for innovation and productivity
- In its **unique mandate to accelerate and enlarge the peaceful uses of nuclear energy**, the IAEA is at the forefront of research and technology transfer and **depends on a stable pool of qualified technical professionals** to fulfil its mission.
- **Nuclear related studies** can help address some of these challenges, and the **demand for qualified professionals in this field is growing and will continue to grow**
- The ***IAEA Marie Sklodowska Curie Fellowship Programme*** & the ***IAEA Lise Meitner Programme*** aim to develop a new generation of women leaders in the nuclear field, promoting their effective participation in global scientific and technological development for a peaceful, prosperous, and sustainable world

Donors and partners

Special thanks to the following **Marie Sklodowska-Curie Fellowship Programme (MSCFP) & Lise Meitner Programme (LMP) donors and partners**

Costs associated with the implementation of both programmes are secured from **extrabudgetary resources**, in line with **established IAEA procedures**

Member States

Inter-gov orgs

European Union

Other

Total funding needs for 100 MSCFP students is in the range of 4-6 M EUR/year

III IAEA internship programmes

- Provide people studying toward a university degree or who have recently received a degree with the opportunity to gain **practical work experience** in line with their studies or interests and expose them **to the work of the Agency**

- It benefits the **IAEA and its programmatic work to obtain the assistance of qualified students** specialized in various professional fields

- Duration of internships is **not less than three months** and **not more than one year**

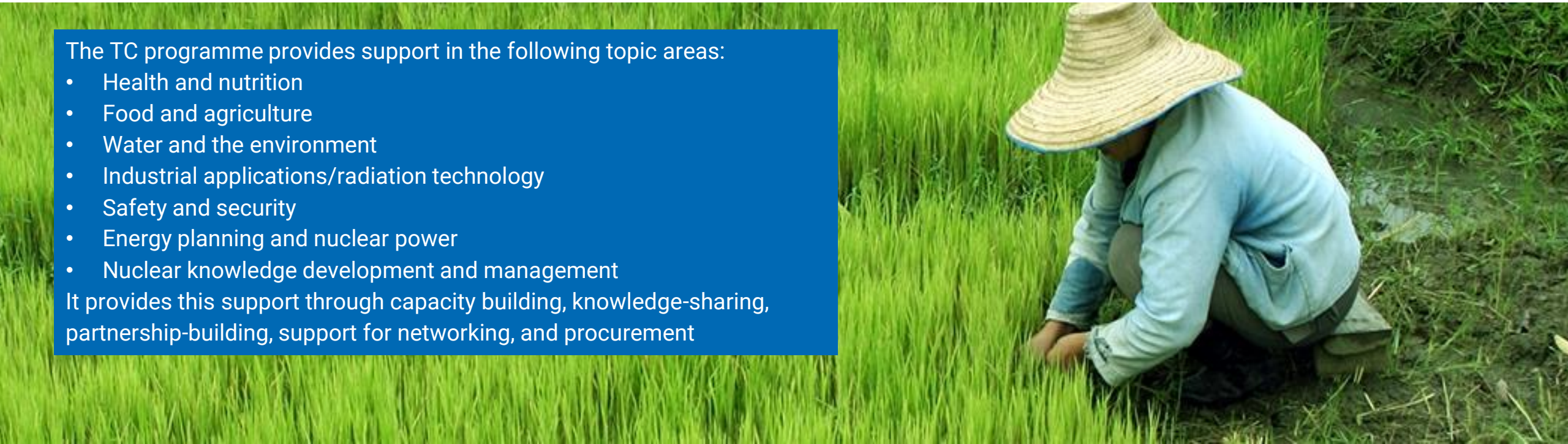
- Interns are subject to the authority of the Director General and must observe all applicable IAEA rules, regulations, instructions and procedures

- The IAEA provides a stipend to interns working full-time at a rate of €1450 per month. The stipend is not a salary, but an allowance to assist with basic subsistence costs during the internship period

IV IAEA implementation activities

The **IAEA's technical cooperation programme** combines specialized technical and development competencies. The **results-based programme** aims at achieving tangible socioeconomic impact by contributing directly in a cost-effective manner to the achievement of the major sustainable development priorities of each country, including **relevant nationally identified targets** under the **Sustainable Development Goals.**

- Operates in four geographic regions: **Africa, Asia & the Pacific, Europe and Latin America & the Caribbean**
- Hels countries to address their specific needs, considering existing capacities and different operational conditions
- Facilitates cooperation between countries to leverage regional capacities
- Technically advanced countries assist less advanced countries to address their needs



The TC programme provides support in the following topic areas:

- Health and nutrition
- Food and agriculture
- Water and the environment
- Industrial applications/radiation technology
- Safety and security
- Energy planning and nuclear power
- Nuclear knowledge development and management

It provides this support through capacity building, knowledge-sharing, partnership-building, support for networking, and procurement

Fellowships

Fellowship a specialized training for **junior professionals.** The training programme encompasses on-the-job training, long term academic training, sandwich courses and e-learning. Fellowships usually last at least one month

Selection Criteria

Fellowships are awarded to junior professionals who fulfil the following:

- Hold a university degree or equivalent
- Have at least 2 years of experience in the project / field
- Are academically or technically qualified, including language skills

Types of Fellowships:

- **Practical training**: have usually a duration of 1 to 12 months at one institute.
- **Long-term academic training**: to build nuclear knowledge capacity in a Member State. (i.e. Masters in Medical Physics, Nuclear Engineering, etc.)
- **Sandwich training**: part of the training is carried out at a host institute/country and part at the fellow's nominating country
- **E-learning**: Takes place in Fellow's nominating country

Scientific visits

A specialized programme for experienced professionals who hold a **senior advisory or management position**, for the purpose of studying the development of nuclear science and technology, organizational aspects and functioning of special services, training programmes and schools in nuclear science, and observing research activities

Awards are intended to broaden the **scientific or managerial qualifications** of specialists in the Member States

Last a **maximum of two weeks** and can take place in one or two countries in the same region.

Selection Criteria:

- Awarded to senior staff with at least 5 years in the project/field
- Candidate holds an appropriate advisory or management position
- Duration: up to 2 weeks in maximum 2 countries / 2 institutes
- Age Limit: 5 years below the retirement age at home country

Supervisor of two IAEA interns

I had the opportunity to explore different fields of medical physics and learn from outstanding experts. I also gained valuable experience in teamwork and international collaboration working in Radiation Safety and Monitoring Section. It was during that internship that I decided to pursue a career in medical physics, and today, I truly love my work.

SUSANA VELOZA AWAD, COLUMBIA
MSCFP, MARCH 2022 – MARCH 2023

Research and Development Engineer in Computer Systems for Radiotherapy and Medical Imaging, DosiSoft and ICM Cancer Clinic of Montpellier, France

Supervisor of two IAEA interns

"Working at Radiation Safety and Monitoring Section has been the most enriching experience of my career, allowing me to deepen my knowledge of radiation protection while gaining insight into the IAEA's safety standards, GSR Part 3 and GSG-7, and their implementation in Latin American Member States. The opportunity to collaborate closely with experts, learn firsthand from their experiences, and receive unwavering support from my supervisor, along with the welcoming atmosphere of the section and the lasting friendships I formed, made my internship truly rewarding.

ILSE KARDASCH NAVA, MEXICO
MSCFP FOLLOWED BY IAEA INTERNSHIP
Research Fellowship at Mexico's National Institute of Cancerology (INCan)

Thank you!