



The Portuguese Society for Immunology (SPI): history and mission

The SPI (Figure 1) was founded in 1973 by group of 13 immunologists who felt the need to create a platform dedicated to education, interaction and state of the art discussion in fundamental and clinical immunology in Portugal. Since then, the Portuguese scientific landscape has tremendously expanded in size, quality and international competitiveness, with the SPI and its members following the same trend. Currently, we have over 400 registered members, who work in research institutes across Portugal, including Instituto de Investigação e Inovação em Saúde (I3S), Instituto de Medicina Molecular (IMM), Instituto Gulbenkian de Ciência (IGC), Champalimaud Centre for the Unknown, Instituto de Investigação em Ciências da Vida e Saúde (ICVS), Centro de Neurociências e Biologia Celular (CNC) and Institute of Biomedicine (iBiMED) and abroad, universities and in clinical care encompassing the fields of immune development and tolerance, cancer immunology, allergy, autoimmunity, vaccination, transplantation and infectious diseases.

Fundamental research in pre-clinical models is central in understanding diseases like HIV/AIDS, malaria and tuberculosis, and autoimmunity, and progresses in parallel with the clinical research in the same fields. Since its genesis, the mission of the SPI is to promote the research in Immunology in Portugal. For



Figure 1. The SPI logo.

this, the SPI supports and organizes scientific meetings and workshops in Portugal, and has implemented a scheme of travel awards and prizes to support young and talented researchers. Over the years, we have awarded several prominent immunologists, who have contributed to the development of SPI and the Portuguese science in general, with a honorary membership.

The SPI is committed to working in partnership with other Societies. We are affiliated with the European Federation of Immunological Societies (EFIS) (https://www.efis.org/) and the International Union of Immunological Societies (IUIS) (https://iuis.org/), and work in articulation with several Medical Portuguese Societies. Of particular relevance is the close collaboration between the SPI and the Portuguese Group of Primary Immunodeficiencies (GPIP), which was established in 2006. Our link to GPIP occurs at different levels, being the most significant the co-organization of our annual meetings in the same occasion. The other SPI activities, including those with EFIS, are always articulated between the SPI board and a GPIP member.

In addition to our scientific mission, we are also engaged in the dissemination to the general public of the importance of the research in Immunology to Health and Disease. In this context, we have coordinated several activities at National level to celebrate the International Immunology Day since 2005. We have an active website (https://www.spimunologia.org/) and our presence in the social media is impressive, with almost 3,000 Facebook followers (https://www.facebook.com/pages/category/Organization/Sociedade-Portuguesa-de-Imunologia-1732423950345204/).

Our main scientific activities: the SPI Annual Meeting and workshops

A major aim of the SPI has been to raise the standards of Immunology in Portugal, with a significant investment in the organization of scientific meetings across the country. The main scientific event promoted by the SPI is the Annual Meeting, which has been held since 1973 and organized by Immunologists (SPI members) working in Portugal. The Meeting is a 2-3 days event held at a different location every year. With increasingly high-quality programs and internationally recognized invited speakers coming from Portugal and abroad, the SPI Annual Meeting provides an opportunity for participants to present their work and a forum for lively discussions on major progresses in the field (as example the program of the last SPI meeting is shown in Figure 2). Attendees are drawn from research institutes to the medical sector of the immunological community, thus the meeting also provides a strong interface between researchers and clinical experts. The SPI Annual Meeting is attended by an increasing number of Immunologists, having reached 200 participants in the last few years.

The SPI has additionally supported the organization of dedicated meetings and workshops on cutting-edge topics, including Innate Immunity, Mucosal Immunology, Hematopoiesis, Thymus and Biological Therapies, specially over the last years. The SPI has also an active participation in endorsing scientific meetings organized by other societies or by non-SPI members (e.g. TOLL 2018 Meeting, in Porto), providing a platform for the dissemination of the event among the research community in Portugal, or by suggesting SPI members as speakers for the scientific program.



Program at a glance

	Wednesday 15 th May
12h00	Registration
13h00	Opening
	SPI Best Paper award 2019
13h45	Session I
	Immune Regulation
	Chairs: Jocelyne Demengeot &
	Luís Graça
	IS1. Dinis Calado
	IS2. Andreas Diefenbach
15h15	OP1. Daniel Inácio
	OP2. Pedro Ferreirinha
	OP3. Vital Da Silva Domingues
16h00	Coffee break
16h30	Session II
	Metabolism
	Chairs: Manuel Santos Rosa &
	Agostinho Carvalho
	IS3. Ursula Grohmann
	IS4. Marc Veldhoen
18h00	OP4. Samuel M. Gonçalves
	OP5. Carolina Ferreira
18h30	Wine & Cheese Poster session I

	Thursday 16 th May
9h30	Session III
	Infection
	Chairs: Margarida Saraiva &
	Manuel Vilanova
	IS5. Richard Maizels
10h15	OP6. Debanjan Mukherjee
10h30	Coffee break
11h00	IS6. Maria Mota
11h45	OP7. Inês Mesquita
12h00	SPI General Assembly
13h00	Lunch
14h00	Sponsor seminar: ILC
14h30	Session IV
	Neuroimmunology
	Chairs: Ana Cristina Rego &
	Íris Caramalho
	IS7. João Relvas
15h15	OP8. Helena C. Brigas
	OP9. Amélia Sarmento
15h45	Coffee break
16h15	Poster session II
17h15	IS8. Marta Jordão
18h00	Selected SC Announcement
20h00	Congress Dinner
	Tertúlia de Eventos

9h00	Session V
	Cancer Immunotherapy
	Chairs: Paulo Rodrigues-Santos &
	Bruno Silva-Santos
	IS9. David Sancho
9h45	OP10. Afonso Almeida
	OP11. Maria José Oliveira
10h15	Coffee break
10h45	OP12. Jani-Sofia Almeida
	OP13. Sara Braga
11h15	6SC
12h00	IS10. Ignacio Melero
13h00	Awards & Closing Ceremony

Figure 2. The XLV Annual Meeting of the SPI (2019; held in Coimbra, Portugal).

Endorsing Young Immunologists

From January 2008, the SPI established a Travel Award Program that enables young Immunologists to attend International meetings in their fields of research or to spend short-term visits to other laboratories. These grants run 4 times a year and are attributed based on the merit and the impact for the candidate's career. We also open specific calls to support the attendance of young scientists to major scientific events, including the European Congress of Immunology (ECI) (http://eci2021.org/) and International Congress of Immunology (ICI) (https://iuis2019.org/). Altogether, the SPI has granted over 50 Travel Awards in the past 10 years.

In 2011, the Portuguese Society of Immunology co-sponsored by EFIS, hosted an international summer school of Immunology in the Algarve. Forty four students from different nationalities, 10 international lecturers and 10 national hosts spent a week in Tavira, in a friendly environment that combined lectures, talks and

poster presentations by the students with lively discussions. Several An extensive system of travel grants ensured that students from countries as distant as China, India or Argentina could participate and discuss their own projects. The EJI published a News and EFIS at the time (Spotlight on Immunology under the Portuguese sun [1]. More recently, in 2018, the SPI fully endorsed the Twin-to-Infect Spring School, organized by the iMM, namely by offering special travel grants for SPI members to attend the meeting.

In addition, the SPI awards a series of annual prizes for excellence in Immunology research. The SPI Best Paper Award, initiated in 2009, recognizes the best published study in Immunology by a SPI member working in a Portuguese institution. An independent panel of International reference Immunologists composes the jury of the prize. The awardee presents the work in the inaugural talk of the Annual Meeting. The best scientific communication presented each year at the Annual Meeting is awarded with the Award of Excellence in

Immunology Mário Arala Chaves (Prémio de Excelência em Imunologia Mário Arala Chaves), established in 2004 by the SPI and the Biomedical Institute Abel Salazar (University of Porto) in the honor of the late Prof. Mário Arala Chaves.

In partnership with EFIS, the SPI actively participates in the Acteria prizes, consistently nominating one of the members in the last few years. Finally, the SPI has endorsed several initiatives proposed by members working at different research institutes in Portugal aiming at consolidating the Immunology training and research in Portugal. Of note are the successful applications supported by SPI to EU Twinning (Twin-to-Infect, iMM) and ERA Chair (ImmunoHUB, i3S) programs.

The SPI beyond Research borders

The SPI promotes a series of outreach activities aimed at widening public awareness for the central role of Immunology in preventing, diagnosing and treating 920



Figure 3. Illustration of the SPI-edited book "O Sistema Imunitário", depicting phagocytes attacking a pathogen.

diseases. Our main platforms for this are our website and Facebook page (mentioned above), which are regularly updated. As examples of our recent engagement, we have issued a commentary to the media supporting vaccination and the importance of following our National Childhood Vaccination program, disseminated information on Nobel prizes related to Immunology research, and most recently, created a channel for information on SARS-CoV2 infection.

Since 2005, the SPI has actively participated in the celebration of the "International Immunology Day", an initiative of the EFIS. In 2008, the SPI received an EFIS prize for its participation in these celebrations, which featured the publication of the booklet "O Sistema Imunitário" (Figure 3). This booklet is mainly directed to children and aimed at providing information on how the immune system works, what is vaccination and its importance, and why do we have allergies, among other topics.

The SPI is actively participating in webinars, for instance it joined one on vaccination "Let's talk about vaccines". Additionally, the SPI has been organizing the celebration of the Immunology International Day in articulation with several institutes with Immunology research in Portugal. Students from High-Schools and Biomedical Universities can visit the above mentioned institutes and engage into different activities, ranging from speed-dates with Immunologists, to seminars and to hands on wet-lab activities (Figure 4). This year, due to the COVID-19 restrictions in Portugal, the celebration was different. We launched an on-line tribute to Professor Maria de Sousa, one of the first internationally acknowledged Portuguese scientists and a former President of the SPI, responsible for revolutionary discoveries in the field of Immunology, who passed away a few days before the International Immunology Day. Maria de Sousa obituary was recently published at EJI [2].



Figure 4. The 2019 International Immunology Day at i3S, Porto.

Challenges and Future Directions

The SPI is approaching 50 years of existence. From a small community, the SPI grew to become a landmark in Immunology in Portugal, both at the academic and public levels. Our short-term goals are to scale-up the number of memberships and revenues of the society, not only to fuel back directly onto the aforementioned scientific and societal activities, but also to open regular calls for specific multiinstitutional research grant projects to be developed by our members. Lastly, we aim at leveraging the international visibility and quality of SPI. We hope to seed the cornerstone conditions to host a large International Event in the coming years, such as the European Congress of Immunology, in Portugal. Together, our synergetic actions aim at equipping Portugal with the finest infrastructures and human resources to reach scientific excellence in Biomedical Research across Europe.

We dedicate this text to all SPI members, in particular to the former and present members of the SPI structure.

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