



School of Medicine

ANNUAL REPORT

2021–2022

University of Minho

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1. INTRODUCTION & GENERAL OVERVIEW

The present report provides an overall view of the School of Medicine, including its research infrastructure - Life and Health Sciences Research Institute (ICVS). Additionally, we report other activities in collaboration with close structures like the ICVS/3Bs Associate Laboratory, the 2CA-Braga – Clinical Academic Center, the B.ACIS, the P5 Digital Medical Center, the NEMUM, the *Alumni Medicina* and the affiliated Spin-offs that all together are uplifting the *Cluster* of the School of Medicine. The detailed data of scientific and pedagogical activities of some entities are complemented by the individual attached annual reports.

Executive summary

Herein, we provide information of educational activities from the academic year 2021-22, whereas info of close structures report activities carried out in 2021 only.

The academic year of 2021-22 was another challenging year for the School of Medicine (EMUM). We kept the implementing a new curriculum (MinhoMD) and we started the process of reorganization of our research infrastructure - Life and Health Sciences Research Institute (ICVS) still within the scenario of a global pandemic crisis and the emergency of the Ukraine-Russia war conflict. Simultaneously, internal University of Minho financial constraints added struggles to the regular management of the EMUM and ICVS activities. The non-execution of the '*program-contract*' previously agreed between the School of Medicine and the Rector of the University of Minho, and the high rate of cativated orders made in the different dimensions of the school's budget determined, in May 2022, the resignation of the President of the School of Medicine. In this sequence, and after elections, a new Executive Direction for the School starting duties at the end of June 2022. Despite the serious financial constraints remained, it was possible to remediate these limitations making possible to maintain the appropriate conditions to end the school year 2021-22.

Thus, the School followed the strategy to accomplish our Mission "***to improve healthcare through education, research and value generation***" (figure 1). This contribution translates into the impact that the EMUM can generate through its four axes of mission: Education, Research, Entrepreneurship (economic value generation) and improvement of Healthcare services in the affiliated health care units (social value generation).

Illustrative model of EMUM's strategic orientation

Articulating EMUM's Vision 2025 and its Mission

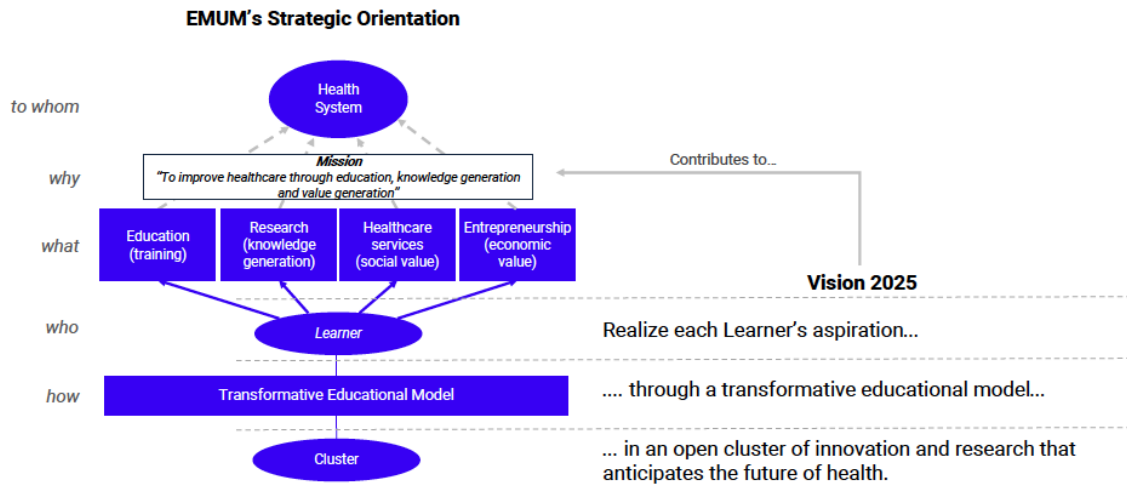


Figure 1 – Illustrative model of EMUM's strategic orientation

Based on this rationale, EMUM's aims **"to Realize each Learner's aspiration through a transformative educational model, in an open cluster of innovation and research which anticipates the future of health"**. This Vision is not only based on EMUM's established core values and identity but also seeks to serve the strategic plan of the University of Minho, by incorporating a number of its principles, such as innovation in methods, fostering research and interaction with the business environment (figure 2).

Mission: "To improve healthcare, through education, knowledge generation and value generation"

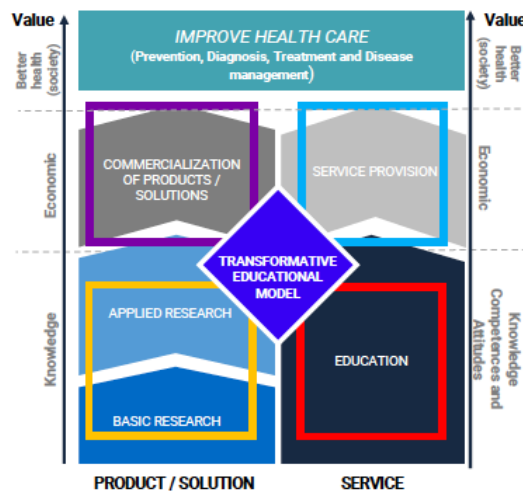


Figure 2 – Representation of the strategic view of the School of Medicine Cluster

To make this possible and in perfect alignment with our Mission, we committed to a strategy, whose success was based on developing a cluster of activities which will provide the Medical and Biomedical **Learners** through all professional life with an Educational Model within a cluster that embraces research and Innovation. This vision implies the management of the cluster capacity in which the EMUM is the conductor, in collaboration with a diversity of internal and external players that are also open to Innovation and able to anticipate the future of healthcare. Such orchestration makes it possible to reinforce several EMUM’s Core Competencies, namely “Bench-to-Bedside Research To and Fro”, “Workplace Well-being”, “Culture of Excellence” and “Auditable Management” that articulates in a synergic syncicium within the Cluster of the School of Medicine.

The combination of these competences within our cluster is pivotal for the differentiation and sustainability of our academic project. Despite being a non-profit organization, the school needs to ensure the consolidation and growth of the cluster. The strategy will encourage “customer” growth opportunities (to offer more solutions to Learners over time) to capture postgraduate income and advanced training, but also to attract funds and foreign students’ and even to bring a reference company to our ecosystem. The success of this strategy, and its associated recognition, will influence the willingness of other relevant players to partner with the School of Medicine.

This report summarises of the major events and achievements of the academic year 2021-22.

During 2021-22, we continued the exciting challenge of renewing the curriculum of the medical degree with the same enthusiasm and integrative spirit. This collective and participative effort was launched in May 2016 and has progressed accordingly to the plan proposed by the Steering Committee (figure 3).



Figure 3 – Time flow for the implementation of the MinhoMD

As depicted in figure 3, we’re in a phase with all educational activities like CBL cases, the development of assessment tools (remote assessment, self-assessment, portfolios and workplace-based assessment) and extensive training of the faculty in active learning/teaching techniques in

practice and when a quality control program starts to be implemented. From the logistical point of view, the final version of schedules and careful balance of workload was developed, facilities were adapted to the demands of the new curriculum, and we acquired audiovisual material and equipment.

Some of the highlights of the new curriculum are: i) Addressing the needs of the physician of the future; ii) Centered on patients and health systems; iii) Flexible and promoting mobility (e.g. each student to build a customized curriculum or allowing students to finish the MD in shorter periods); iv) Promoting basic and clinical research; v) Collaborative and conferring additional degrees (e.g. Majors and Minors in addition to the MinhoMD).

One of the benefits of engaging in a curriculum review relates to the possibility of expanding networks. An institution that aims to be recognized internationally depends on its ability to create networks. In light of this view, we made efforts to reinforce internationalization in the past years. This included the exchanging of several faculty members and students to other medical schools, namely Thomas Jefferson, Penn State, where novel medical curricula are being implemented. Besides these, we kept the promotion of students and faculty exchange programs (ERASMUS and the Global Education in Medicine Exchange) and our continuous commitment to other institutions that have aligned our mission. Of relevance, the work of the curricular reform has also provided unique opportunities to expand our network in the medical education field by hosting guests from different institutions and promoting visits of our students to other medical schools.

On October 2021, we celebrated the graduation of our 15th class of medical students (up to now, the EMUM celebrated the graduation of 1595 Minho medical students) and the graduation of our postgraduate students (up to now, the EMUM celebrated the graduation of 220 PhD students and 158 MSc students). This is certainly always a major moment for our community as it represents one of the pinnacles of our mission. The level of preparation of our medical students (at least their knowledge) was again tested in the national residency selection examination (these still under our former curriculum), and in line with previous years, the (average) performance of our medical graduates was the highest in Portugal (first place at National level). This is reassuring of the level of training students received and an important achievement in light of the recent change in the landscape of access to residency programs in Portugal (now that a high percentage of students does not have access to those residency programs).

This year (2022), we received the first cohort of students for the new Master in Assessment in Health Professions Education (MAPS). MAPS is a collaboration with the National Board of Medical

Examiners (NBME, USA) and aims to build an international community of practice (centered in Portuguese and Spanish language culture/communities) committed to promoting assessment of quality in medical education and research. This first cohort of students got 15 scholars, with almost half coming from abroad.

The quality of our more established postgraduate programs recognized by the National Accreditation Agency (all these programs will start the re-accreditation in the fourth trimester of 2022) and has successfully recruited new students. Essentially, we got 58 new pos-graduate students that included (in addition to MAPS Students cited above) 18, 15 and 10 new students for the Master in Health Sciences, PhD in Health Sciences and PhD in Medicine, respectively. Many of them were granted with individual scholarships Portuguese Science Foundation (FCT) and International Industry (Karl Storz). The specialization ultrasound course did not recruit new students, but the objectives and competencies that were promoted to it are now being offered as Minors in the new MinhoMD.

Regarding the advanced training program carried out in the facilities of the ICVS/School of Medicine with scientific mentorship of the School of Medicine, they are organized with administrative support and financial management either from School of Medicine, B.ACIS and *Alumni* Medicine. Herein, we report data obtained from the annual reports of those entities that work in a syncytium with the School of Medicine. The COVID-19 pandemic still had an impact on the organization and recruitment of participants for these activities. Even so, in 2021, we could organize 13, 7 and 11 courses with administrative support and financial management either from School of Medicine, B.ACIS and *Alumni* Medicine, respectively. These welcomed 798 participants with 9% coming from abroad. The EMUM/ICVS expertise in advanced training will also mutually contribute and profit from the new MinhoMD curricula, specifically by providing medical students with the possibility to include courses/workshops in their portfolio and benefit from interaction with other participants.

At the University level, doctoral college has established its strategy for the improvement of PhD program. Following this recommendation, the school of Medicine has being inspired by the international ORPHEUS organization that aims to safeguard the PhD as a research degree by supporting graduate schools, faculties and departments, research students and their supervisors through quality assurance mechanisms, advocation of best practices, professional development and training.

The most important element of a project like ours is the people. Thus, the creation of appropriate working culture and environmental conditions is amongst the priorities of the EMUM. Several progresses have been made to improve the conditions of the facilities, and to promote educational actions of value to the faculty, non-faculty staff and researchers. Additionally, the EMUM supports efforts that promote the well-being of all its members, in particular its students. Data resulting from these actions/research is used to develop preventive/corrective actions and publish scientific reports. Last year, we maintained our efforts to improve the working environment's quality and promote literacy and awareness of the relevance of mental health amongst the EMUM community. These efforts were complemented by other initiatives, in collaboration and in alignment with students that were very well perceived and improved the general satisfaction with the living environment in the EMUM ecosystem. The pandemic forced us to implement several alterations in school facilities to guarantee compliance with health policies and to ensure safety conditions for our students, faculty, non-faculty staff and researchers. We are now hosting smaller classes in larger rooms to provide adequate distance between individuals and provide distance learning in addition to in-person classes. Communal spaces were also improved to ensure adequate distancing during meals. From these pandemic times, we have learned that our community enjoys the gardens for meals, the sun for resting and the trees' shadow for meetings. Thus we're preparing the post-pandemic period by improving outside spaces in order to have conditions for more effective utilization of our gardens.

It is our vision that a medical school is the cornerstone of a cluster that includes distinct institutions. More specifically, the EMUM invested and has been the pivotal supporter of raising the *Cluster* of the School of Medicine. Now, we have the challenge to consolidate it, always striving to build trust-based relationships and establishing win-win partnerships that can create the feeling of passion and pride at work of all interveners.

In 2021, the ICVS expanded its activities as a reference center in biomedical and translation research. Despite the constraints still imposed by the pandemic in 2021, the ICVS community kept motivated and published 389 manuscripts in peer-reviewed journals, setting a new milestone in the ICVS productivity. From these manuscripts, around 60% were published in the first quartile, with a mean impact factor of 5.7, with 34 papers published in journals with an impact factor greater than 10. Importantly, regarding intellectual property, the research developed at ICVS resulted in the submission of 4 new patents. Moreover, the competitive funding secured by the ICVS researchers through competitive calls might be highlighted. In fact, ongoing research grants portfolio increased by around 18 million € to support research activities for the next 3 years, of which 5.5 million € relate to funding obtained in 2021 (with 60% from international agencies).

Through ICVS/3Bs Associate Laboratory, we opened two additional positions for assistant researchers with recruitment already completed in 2022.

In 2021, the 2CA-Braga kept its leading position as clinical trial site in Portugal: it hosted 1 in every three commercial clinical trials in the country (1 in every 2 for phase III trials). As an important indicator, the 2CA-Braga recruitment rate of patients has been consistently above 90%. The 2CA-Braga is a results-oriented institution with a strong reputation among its partners and stakeholders. After ten years of growth and consolidation, and since opening its Phase I Clinical Trials wing, it supports more than 35% of all the Phase I-IV Industry-driven clinical studies performed in Portugal as registered by the Infarmed (Portuguese Authority in Medical Products). It is one of the few units in the Iberian Peninsula to be able to conduct research throughout the entire drug development pipeline, from cells and animal models to clinical trials. Member of the national scientific system, integrating national and international clinical research networks, the 2CA-Braga is certified under ISO 9001:2008 Caspe Healthcare Knowledge Systems (CHKS). In addition, the 2CA-Braga developed research projects in partnership with the ICVS and other research institutions from the UMinho (with projects funded by the European Commission or nationally by the FCT and ANI).

In 2021, P5 established a growth of clinical activities (e.g. the number of online consultations rose from 271 to 691). The number of requests for the service "Symptom Checker and Clinical Counseling" increased more than 10 times, as we continued with the cooperation protocols with the municipalities of Paredes de Coura and Guimarães and at the end of the year a collaboration with the municipality of Braga was initiated. The user's satisfaction index was 4.8 (on a 0 to 5 scale).

In 2021, in B.ACIS two newly scouted and identified technologies (including disclosure forms and early-stage assessment by B.ACIS) were patented as priority patents and 1 utility model and 2 new international (PCT) applications were submitted. From an operational point of view, animal models for R&D and validation services were provided to researchers and to biotech companies, including validation of commercial kits for the detection of SARS-CoV-2 by RT-PCR. Also relevant were the administrative support and financial management of several advanced courses mentioned above.

As already mentioned all the actions took place in a very complex and unexpected context triggered by the Covid19 pandemic and the Ukraine-Russia war conflict. This scenario has significantly amplified our financial restrictions (that are general to all Universities in Portugal, but particularly to University of Minho). All these situations have determined a crisis of severe financial execution in our institution, compromising the implementation of many of our pedagogical,

scientific and research projects. Even though reaction of the entire EMUM community has been collaborative, such exceptional conditions completely disrupted the School of Medicine's programmatic contract with the University of Minho in 2021-22. Such situation required from the newly elected Direction of the School to make a tremendous effort to prioritize all activities to find solutions to keep the most relevant projects ongoing, minimizing the impact of the inherited financial conditions.

2. OBJECTIVES AND STRATEGIES IN 2021-2022

The objectives and strategies for 2021-2022, presented in a previous report, were defined on the premise of our responsibility to keep a benchmark of quality at the highest international level as well as on our need to continuously improve and expand the portfolio of activities to assure the best conditions for the future.

In line with these premises, in this period we renewed our commitment on the:

- continuous improvement of the pedagogic and scientific quality of the EM project;
- increase of our ability to conduct remote assessment and training through in-house-development and subscription to several online platforms.
- incorporation of new pillars (namely Health System Sciences) in our curricular plans and a greater visibility of medical Humanities;
- introduction of training programs that promote the acquisition of skills on the usage of novel medical technologies;
- continuous use of best practices in medical assessment, namely through an effort to expand formative assessment opportunities and feedback;
- active participation in international medical education networks;
- restructuring and reorganization of the medical residency training program and clinical fellowships programs;
- active recruitment and promotion of academic, research and non-faculty staff;
- promotion of the awareness of the quality of our educational and research programs, nationally and internationally;
- continuous search for the best practices in pre and postgraduate training;
- launching of a Master Program in Assessment for Health Professionals;
- offer of advanced courses/workshops and other scientific events through the B.ACIS;
- positive and constructive interaction between all stakeholders involved in the project;

- creation of the best working environment, by improving physical and logistic conditions, by promoting development and education activities for all collaborators, but also by promoting a safe and vibrant working environment for students, researchers, non-faculty staff and faculty;
- continuous improvement in management and in creating efficient processes in the EM, namely guided through a detailed analysis performed by external experts;
- mitigation of the detrimental impact of the externally-imposed bureaucratic load and the unpredictable financial scenarios;
- support fundamental, translational and clinical research efforts, with renewal of our research platform.

3. ACTIVITIES AND ACHIEVEMENTS IN 2021-2022

Medical Degree Course

The academic year 2021-2022 was highly influenced by the COVID-19 pandemic and the Ukraine-Russia war conflict. During the short lockdown periods, in the Autumn-Winter 2021-22, the school successfully used the e-learning approach. Fortunately, we did not need to suspend all clinical training in healthcare institutions, as in previous academic year. By the Spring 2022, the epidemiological situation was better, which allowed a considerable return of activities to take place in the school/affiliated health units. The students were more familiarized with dealing with the restrictions still active in the healthcare institutions to resume their clinical training, becoming more natural and common patient contacts as the academic year progressed.

An important milestone of this academic year was the implementation of the new curriculum, with the MinhoMD receiving the third cohort of students for the 1st (new entrants) and the oldest already reaching the 6th year (moving from the 3rd year) classes. MinhoMD is a new curriculum, with a strong focus on self-directed learning, clinical reasoning, bedside clinical skills, including point-of-care ultrasound, medical humanities and technology applied to medicine. Its ongoing implementation in 2021-2022 was successful.

Six-year Integrated Master Program in Medicine

A separate report (Snapshot Medical Degree-Assessment of the Academic Year 2021-2022), prepared by the Medical Education & Postgraduate Unit, detailing the pedagogical activities and results undertaken in the academic year 2021-2022 is presented in annex VI

V. A brief summary of the academic achievements follows.

The overall success rates were very high. The overall mean was 95% with a standard deviation of 6%. The smallest and largest success rates were year 1 (87%) and 3 (99%). There was a general trend of increase in successful performance from the initial to the third year, and a slight decrease in the fourth year, followed by an increase to the last year of the degree. This seems to reflect the progressive adaptation of the students to the schools' teaching and learning approaches, but also their adaptation to the newly revised curriculum at four and five years of the degree.

In the year 2021-2022, 121 new students were admitted via the national admission process (110 under the general regime and 11 under the special regime for students from the Azores and Madeira Autonomous Regions, Portuguese emigrants or students with disabilities). There were 1283 applicants to this Program (10,7 applicants/place, representing a significant increase from the previous year). For the national admissions process (general contingent), the lowest entrance grade for the newly admitted students was 185.80 out of 200 (3rd in the ranking of medical degree). *Eighty-two* percent of the students admitted under the general admission regime chose EMUM as their first option. There were 9 additional students enrolled: 1 athlete and 8 from the Portuguese speaking countries in Africa.

The gender distribution of the novice students in 2021-2022 continued biased towards women (76%). Enrolled students originate mainly from the region, maintaining the same pattern as previous years: 70% come from the District of Braga and 13% from the District of Porto, which is thought to be driven by economic reasons.

Four-year Graduate Entry Program in Medicine

In 2021-2022, we continued with the track "Four-year Graduate Entry Program" for graduate students. In this program, the selection process is within the full control and responsibility of the EMUM. The 2021-2022 graduate entry track selection procedure for the 18 places was identical to that in previous years and included 4-steps: (1) administrative selection for absolute merit - which included holding a previous degree with a final graduation grade point average equal to or above

14/20 points; (2) written examination of knowledge – a Basic Sciences Admission Test with 100 multiple choice single best answer items on biology, mathematics, chemistry and physics; (3) Assessment of Transversal Skills (ATS) – a Multiple Mini-interview exam (MMI) composed of a series of 10 stations, intended to assess personal attributes and skills relevant to the medical practice (Communication, Empathy, Critical thinking, Integrity, Ethical values, Teamwork, Scientific knowledge, Management, Creativity, Self-assessment) ; (4) analysis of *curricula vitae*. There were 197 applicants to this Program (10,9 applicants/place, representing a significant increase from the previous year). The top-scoring 39 students were admitted to the ATS. The best 18 students with valid registrations and selection criteria were admitted to the “Four-year Graduate Entry Program” in 2021-2022.

Post-graduation

A brief summary of the activities is provided in the next paragraphs.

The formal advanced training at the EMUM presently encompasses the following programs:

- *Master program in Health Sciences (2021-2022)*: there were 48 active students, of which 18 are new enrolled, and 16 defended their theses.
- *Master in Assessment in Health Professions Education (2021-2022)*: There were 15 active students, of which 15 are new enrolled.
- *PhD program in Health Sciences (2021-2022)*: there were 83 active students, of which 15 are new enrolled, and 15 defended their theses.
- *PhD program in Medicine (2021-2022)*: there were 50 active students, of which 10 are new enrolled, and 8 defended their theses.
- *Aging and Chronic Diseases (PhDoC) (2021-2022)*: this inter-institutional (with University of Coimbra and Nova University of Lisbon) FCT PhD program finished, as such, there was no further recruitment. At this moment, there are a total of 11 students, of which 5 defended their theses.

Altogether, in the academic year 2021-2022, 63 Master and 144 PhD students were developing their activities within the post-graduate programs of EMUM.

Medical Students Associations: NEMUM and *Alumni Medicina*

NEMUM Report

NEMUM (Núcleo de Estudantes de Medicina da Universidade do Minho), a non-profitable organization, was officially founded in 2003 by a group of students of the EMUM.

NEMUM represents all medical students at the University of Minho and, among other objectives, aims to offer them a series of opportunities to complement their curriculum and their academic experience. Thus, NEMUM focuses its action on important and relevant areas to medical students, such as community and public health and awareness, science, investigation, soft-skills acquisition, culture, leisure, medical education, and international mobility. This last year was particularly challenging as we came from the COVID-19 pandemic. The resistance to returning to the presential activities alongside the comfort of being at home has brought some difficulties in activities' organization as in student adhesion to them.

Nevertheless, in the formative realm, we created a dedicated human rights congress called Consonâncias, which had its first edition and an aerospace medicine congress, the Space.Minho 2022. In the community, we acted as a health institution, taking medical care to the people and trying to demystify the white coat fear with our children's dedicated activity, Hospital dos Bonequinhos, now closer to Braga's children, called Hospital dos Bonequinhos mais perto de ti. In addition we're proud to claim our first international award, a Rex Crossley Award, by IFMSA (International Federation of Medical Students Associations) with our "baby activity" My Med PAL, submitted to the Federation's international program Teaching Medical Skills.

We continued to upscale and grow our old activities, as with time comes improvement and Innovation. We developed leisure activities, such as our Euphoria Glow Party and promoted community health with our Aldeia Feliz, a screening activity in isolated populations. We ran a sensibilization campaign dedicated to environmental problems and their impact on public health, called Ecoweek which also aimed to increase and develop optimal environmental habits in our school's community. Finally, we couldn't skip our NOW, the NEMUM Open Week, a week dedicated to NEMUM and bringing it closer to our students. We developed several activities for the week and celebrated our 19th anniversary with a ceremony.

Despite all of this, our job is yet to be over. We are developing our medical education congress Meeting Medical Education, a two-day activity that aims to increase the area's knowledge in our students and to bring them closer to Medical Education, as it only exists with the student's participation. We are working on the Hospital dos Bonequinhos 15th edition alongside Hospital de

Braga. We are always thrilled to organize this activity, as it promotes infant health in which the children bring their sick toys to be treated by our doctors.

We are also organizing our biggest congress Minho Medical Meeting, or MMM, a three-day congress, this year at Portugal's second biggest hall, bringing dozens of speakers and hundreds of students from all over the country. NEMUM is also preparing to organize a one-day congress with Ordem dos Médicos to talk about mental health, this year in December.

We have worked closely with our partners and stakeholders, like the National Medical Students Association, ANEM, and the University of Minho Academic Association, AAUMinho. We have been advocating on several topics on medical education and education policies with the principal goal of reaching excellence in medical students' education. Furthermore, we take pride in maintaining a solid relationship with our most relevant stakeholder, our medical school, Escola de Medicina da Universidade do Minho, with whom we have worked together to provide the best education possible to our students, an education recognized nationally and internationally.

As NEMUM President, I am proud of what we have achieved so far and very proud of my team, composed of 31 students working every day to achieve our most ancient and meaningful goal: student representation and an excellent medical education. We shall continue to improve, innovate, and bring the best to our community.

Alumni Medicina Report

Alumni Medicina - Núcleo de Antigos Estudantes de Medicina da Universidade do Minho - is a non-profit association composed of the alumni of the School of Medicine of the University of Minho. The mission of this association is to represent and contribute to the development of its alumni, but also to support the project of the School of Medicine and to promote the interaction between its members and their Alma Mater.

Alumni Medicina has been offering courses addressing the basic knowledge and skills that residents from various medical specialties must acquire for clinical practice (Anesthesiology, Gynecology and Obstetrics, Psychiatry, Neurology, Orthopedics and others) as well as 5 activities in specialized courses in Clinical Communication skills in Appointment. We have also developed courses targeted at technical skills (suture skills, research, and others). Besides the scientific initiatives, *Alumni Medicina* has also organized the "ExpoIFG" – a meeting where young doctors

transmit their experience to recent graduates regarding the first year of medical experience. Frequently, this is the first contact of the recent graduates with our association.

For the first time, we have organized along with the Internacional Office of School of Medicine, our first international summer school. An initiative with brazilians medical students at the University of Vale do Rio dos Sinos.

Regarding the direct connection between the *Alumni Medicina* and the medical students of the School, our association maintained an important cooperation with the medical student's local committee – NEMUM. From a social perspective, *Alumni Medicina* continue to invest in the social emergency program, a fund created to help current students with financial difficulties. This Social Emergency Program was of utmost importance for some students during the pandemic situation.

We have also supported Porta Nova - an international volunteering project created by the school's medical students – in which we gave our contribution to allow our students to go abroad to countries where medical access is not easily available; and Haja Saúde, biannual magazine developed by Uminho medical students, communication department in collaboration with our *alumni*. This magazine is published in April and October.

In order to promote cultural exchange inside the walls of the school our Espaço Arte Alumni Medicina where organized one photography exhibitions, two painting exhibitions and one with Porta Nova Students about international volunteering mission in Guinea Bissau.

With the aim to improve communication between the association and our Alumni and promoting an interaction and participation, we have created a new website and LinkedIn. During this year, *Alumni Medicina* also continued its effort to collaborate in the activities and well-being initiatives of the School of Medicine, contributing to the continued growth of the community.

Research Cluster

The EMUM research activities are developed in the context of the ICVS (member of the ICVS/3B's - Associate Laboratory); the 2CA-Braga, the P5, and the B.ACIS.

- The ICVS is a research subunit fully incorporated within the EMUM, integrated in the national system of science since 2003. The research activities in the ICVS are centered in four multidisciplinary Research Domains: i) Microbiology and Infection; ii) Surgical Sciences; iii) Neurosciences; and the recently launched domain of iv) Population Health - which are supported

by laboratorial core technical units/facilities. The ICVS headquarters are at the EMUM. (See Annual Report 2021 in the Annex II)

- The 2CA-Braga is a private non-profit organization, resulting from a partnership of the EMUM with the Braga Hospital, EPE and the Hospital CUF Porto, aiming at developing clinical research, including clinical trials in collaboration with international industrial partners. The 2CA-Braga headquarters are at the Braga Hospital. (See Annual Report 2021 in the Annex III)

- The B.ACIS a private non-profit organization that results from a partnership between the EMUM and the Alumni Medicina. The B.ACIS is the Center for Health Innovation of the EMUM, developing activity in Innovation (transfer of knowledge, fostering and supporting the creation of startups, promoting an University-Industry approach strategy); Provision of R&D services (in conjunction with the ICVS); and Advanced scientific training. The B:ACIS headquarters are at the School of Medicine. (See Annual Report 2021 in the Annex IV)

- The P5 is a private non-profit association that results from a partnership between the EMUM and the Alumni Medicina. The P5 mission is to contribute to the improvement of healthcare; to develop and implement solutions that meet the needs of the population; and to implement infrastructures appropriate to the developed solutions. The P5 headquarters are at the School of Medicine. (See Annual Report 2021 in the Annex V)

4. ARTICULATION WITH THE NATIONAL HEALTH SYSTEM

The key element of our strategy is the multi-centre approach, based on inter-institutional partnerships within the legal framework concerning the articulation between the Medical Schools and the Health Services, a legal document (*Portaria 36/2002*). This is disruptive in the Portuguese context and justifies its inclusion in this report, as this collaborative effort with almost all healthcare units in the region has permitted the establishment of conditions to improve the quality of care in the Minho region. In a setting of consolidation, the level of commitment with academic (pedagogic and research) activities has persisted or expanded, despite the increasing number of editions of the medical degree and the growing burden on healthcare professionals. Implementing MinhoMD has also boosted the engagement of clinical tutors in pedagogic processes. The renewal of the clinical staff involved in academic activities has also progressed steadily and the quality of

the clinical teaching continued to be recognized by students and physicians. The presence of the students in the affiliated hospitals continues to be extremely well appreciated. This clinical network's structure, including the governance, is detailed in Annex VII.

5. GOVERNING AND ADVISORY BODIES, SUBUNITS AND COORDINATING BOARDS

In accordance with the bylaws of the University of Minho, currently the governing and advisory bodies, subunits and coordinating boards of the EMUM are as follows:

Governing bodies

- The School's Council
- The School Presidency (President and Vice-Presidents of the School)
- The Scientific Council
- The Pedagogical Council

Advisory bodies

- The External Advisory Council of the School
- The Advisory Council of the Scientific-Pedagogical Subunits
- The School Secretary

The School subunits

- The EMUM Scientific-Pedagogical Subunits: the Scientific-Pedagogical Areas
- The EMUM Research Subunit: the Life and Health Sciences Research Institute

Coordination boards

- The ICVS Directive Board
- The Course Committees
- The Coordination of the Organic Subunits and of the Units and Support Offices

The competences and the present composition of these bodies and boards are presented in Annex VIII.

6. HUMAN RESOURCES

The success of projects relies on the quality of its teams. The EMUM is aware of this and committed to create the best possible conditions for our teams to develop their work and built our Mission and Vision. (see Annex IX for more details)

Academic staff and researchers

In the scenario of implementing the MinhoMD and reorganizing our Cluster, a high priority was given to the renewal of the faculty, including recruitment and promotion of academic staff. For that purpose, the EMUM has its own benchmarks/recommendations for academic progression, which are known by all faculty members (and by those who express interest in joining the faculty). We keep committed to assure that the selected candidates are aligned with the institutional project and engaged in developing its specificities. In this period, we have intensified our faculty development programs related to implementing MinhoMD (both for newly admitted academic staff and the existing faculty). The program, based on workshops and supplemented with small team activities and informal discussions, has been pivotal for successfully implementing a new curriculum.

Currently, the EMUM has a faculty of 127 members (32 Full Time) of which 72 are PhDs. The faculty includes: 5 Full Professors, 1 Coordinating Researcher, 5 Associate Professors with Habilitation, 9 Associate Professors, 1 Principal Researcher, 4 Assistant Professors, 7 Assistant Researchers and 95 invited teachers (6 invited Full Professor, 4 invited Associate Professors, 32 Invited Assistant Professors and 53 Invited Teaching Assistants). Additionally, the EMUM counts with 2 Emeritus Professors, 1 Associate Professor (cooperation with Faculty of Nutrition and Food Sciences from Oporto University), 2 Permanent Invited Professors, 7 Visiting Scholars, 8 Affiliate Professors and many other collaborators particularly related to the Clinical Residencies. The full composition of the regular teaching staff is listed in Annex IX, together with their qualifications, academic/hospital position and scientific area (for a matter of precision, the academic position is indicated in Portuguese). The Clinical Supervisors and Tutors who supported the clinical training of students in the Hospitals and Health Centres during the academic year 2021-2022, a total of around 800 clinicians, are listed in Annex VII. Regarding the faculty profile, it is important to highlight that 75% (89 out of 118) of the academic staff are MDs.

A note to highlight that we have also made an important effort to expand and stabilize our research staff, which provide an important value for our academic efforts.

Non-academic staff

Annex IX presents the non-academic staff members, in a total of 46 (38 are permanent staff and 8 are non-permanent staff), and their qualifications, position and allocation. The academic profile of the staff is above the average situation in the Portuguese higher education system (83% of the staff have a higher education degree). As previously reported part of the staff is allocated to the research institute; this represents a significant effort from the EMUM to guarantee the best possible conditions for the research activities in the ICVS and an important challenge for the future. We kept our commitment in assuring that the non-academic staff can also undergo educational activities to improve their qualifications. (see Annex IX).

7. FINANCIAL RESOURCES

One of the most innovative aspects of the EMUM project was the concept underlying the celebration of a contractual program established between the School of Medicine and the University. This contract defined an annual budget to be allocated to the EMUM to cover overall expenses (salaries, costs with healthcare units, current expenses and equipment). The budget allocated to the School in 2021 was of 6 004 096.84€ which was distributed by following itens:

- Salaries: 3 231 771.46€, which corresponds to 53.8%;
- Payment to Hospitals: 577 793,00€ , which corresponds to 9.6%;
- General expenses and management of building 19: 2 194 532.38€, which corresponds to 36.6%;

At the end of 2021, the cativated budget from 2021 budget was around 2 000 000 €. The high rate of cativated bills seriously compromised the activities early 2022. This earnestly affected the sustainability of project demanding from the new Direction (ending the academic year 2021-22) new measures to minimized the impact of such an attitude

8. FINAL REMARKS

We kept committed to our Mission as “we have accomplished the objectives that were established at the launching of the EMUM”. This journey of 20 years has evolved to the establishment of the EMUM cluster: Hopefully we have also launched a strong basis for renewal and growth of our project, even when facing unprecedented challenges.

A word of praise and gratitude to All that keep the dream possible!



School of Medicine

ANNUAL REPORT

2021–2022

ANNEX I

MinhoMD brochure (Portuguese)

University of Minho



Universidade do Minho
Escola de Medicina

MinhoMD

Aprendizagem •
orientada
para resultados
em saúde

Escola de Medicina



Universidade do Minho
Escola de Medicina

Missão

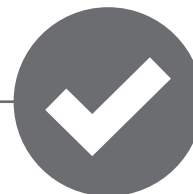
Melhorar os cuidados de saúde
através da formação
e da geração
de conhecimento e valor



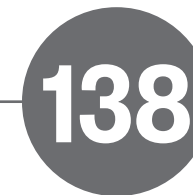
1º
Melhor desempenho
nacional no acesso
à especialidade



Reconhecimento
de Excelência ASPIRE
do envolvimento
dos estudantes



Qualidade
assegurada
por cultura
de avaliação



138
Admissões
por ano



estudante

no centro do processo
de aprendizagem

O plano de estudos inovador da Escola de Medicina

A Escola de Medicina apresenta o seu currículo para o Mestrado Integrado em Medicina, com uma reforma que continua o percurso inovador iniciado há 20 anos. A missão continua a ser formar os médicos do futuro.

A Escola de Medicina da Universidade do Minho tem um novo plano de estudos, o **MinhoMD**. Conhecida pelo método de ensino inovador, a Escola de Medicina cria um **currículo mais diversificado e que permitirá aos seus estudantes terem mais autonomia na escolha do seu percurso**.

O MinhoMD está desenhado sob o mote “**preparar hoje os médicos que o futuro precisa**”. A prática da medicina está a mudar rapidamente e o ensino médico tem de acompanhar essa mudança. Partindo desta constatação e da recolha de contributos alargados de docentes, estudantes e ex-estudantes, pacientes e cuidadores informais, gestores de instituições de saúde, médicos e outros profissionais de saúde, foi desenhado um plano curricular totalmente inovador. O objetivo é **formar médicos versáteis, multidisciplinares, dotados de elevada capacidade de raciocínio, excelentes comunicadores e com grandes capacidades humanas**.

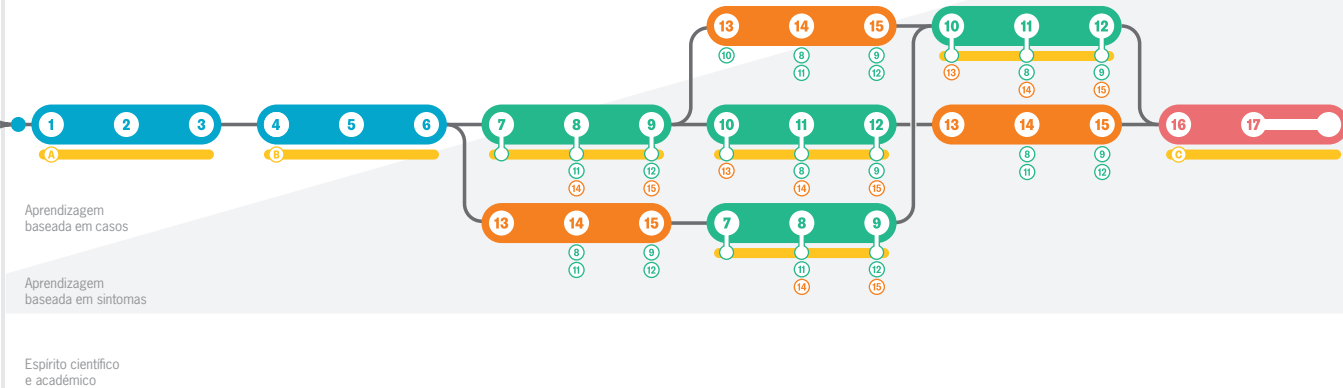
Plano de estudos



Fundamentos da medicina

Prática da medicina + Opção

Estágio



- 1** Introdução à Formação em Medicina
15 ECTS
- 2** Fundamentos da Medicina 1
15 ECTS
- 3** Fundamentos da Medicina 2
15 ECTS
- A** Perfil Académico 1
15 ECTS

- 4** Percursos Complementares em Medicina
15 ECTS
- 5** Fundamentos da Medicina 3
15 ECTS
- 6** Fundamentos da Medicina 4
15 ECTS
- B** Perfil Académico 2
15 ECTS

- 7** Introdução à Prática Médica
20 ECTS
- 8** Prática Clínica e Perfil Académico 1
20 ECTS
- 9** Prática Clínica e Perfil Académico 2
20 ECTS

- 10** Prática Clínica e Perfil Académico 3
20 ECTS
- 11** Prática Clínica e Perfil Académico 4
20 ECTS
- 12** Prática Clínica e Perfil Académico 5
20 ECTS

- 13** Projeto 1
20 ECTS
- 14** Projeto 2
20 ECTS
- 15** Projeto 3
20 ECTS

- 16** Transição para a Prática Profissional
15 ECTS
- 17** Prática Profissional
30 ECTS
- C** Perfil Profissional
15 ECTS

Ensino mais personalizado e opcional

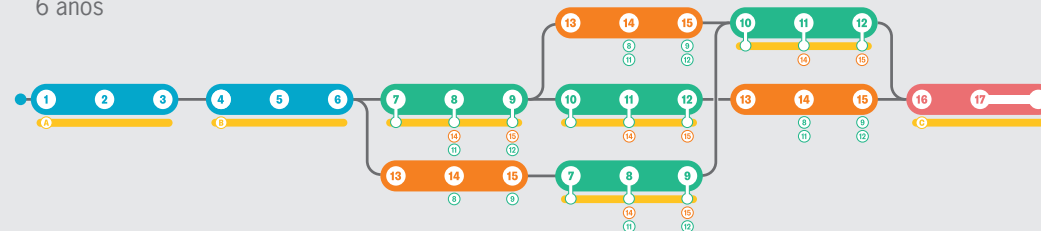
O novo currículo é altamente focado nos estudantes permitindo-lhes explorar e desenvolver todos os seus interesses e potencial. Assim, Os estudantes são responsáveis pela definição do seu próprio currículo, desenhando o seu percurso através de unidades opcionais (que constituem cerca de 20% do total), incluindo a possibilidade de frequentar **majors e minors** em áreas diversas (como economia, gestão, ciência de dados ou investigação biomédica) ou de participar em iniciativas de voluntariado, erasmus+, investigação ou outras atividades.

A capacidade de definirem o seu próprio ritmo permite aos estudantes estenderem a sua formação com a realização do doutoramento integrado (programa MD/PhD de 9 anos) ou realizarem o curso em apenas cinco anos (percurso acelerado). Os estudantes que pretendam antecipar a conclusão de curso terão de realizar unidades curriculares durante o período que normalmente não é letivo, isto é, por exemplo, durante as férias do verão. As unidades passíveis de serem realizadas nesses momentos são as opcionais, que dão liberdade aos estudantes de desenvolverem projetos numa ou em várias áreas do seu interesse. Adicionalmente,

um estudante com uma licenciatura prévia pode concorrer ao percurso alternativo de quatro anos. O maior leque de opções oferecido pelo plano de estudos permite **formar médicos diferenciados e vocacionados para áreas como a economia, a gestão ou a informática, por exemplo.** Além das diferentes experiências e realidades com que o estudante se cruza, o próprio percurso dita uma maior capacitação do futuro médico.

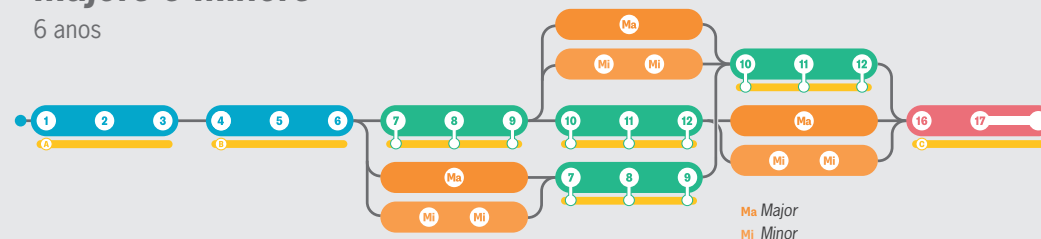
Convencional

6 anos



Majors e Minors

6 anos



Acelerado

5 anos



Em Alternativo

(estudantes com licenciatura prévia)

4 anos



18 Fundações da Medicina 1
19 Fundações da Medicina 2

Que mais traz de novo para os estudantes?

Um dos pontos mais distintivos do novo currículo é a **antecipação do contacto com a clínica** (ensino baseado em casos clínicos, aprendizagem da semiologia e da ecografia *point-of-care*) desde a entrada no curso. Mas não é só aí que fazemos grandes mudanças para melhorarmos ainda mais a formação. Além da flexibilidade e liberdade de cada estudante na definição do seu percurso, cada um terá, no curso, um **ano inteiro opcional**. Este ano opcional ajuda a construir conhecimento noutras áreas (mesmo que não se relacionem diretamente com Medicina ou Saúde) e ganhar novas experiências e competências.

Como dizia o nosso fundador, Professor Joaquim Pinto Machado:

nada do que é humano é estranho ao médico.

O nosso currículo é já reconhecido pela forte **ligação à investigação**. No MinhoMD reforçamos ainda mais as oportunidades de fazer investigação científica nos nossos centros de investigação – o ICVS, que é no mesmo edifício, e o 2CA, que funciona mesmo ao lado, no hospital de Braga.

O nosso método de ensino sempre foi inovador e procurou dar as melhores ferramentas para criar médicos com um raciocínio clínico eficaz e excelentes competências transversais. Com o MinhoMD vamos mais longe na forma como os estudantes aprendem.

Em vez de memorizar doenças (sinais e sintomas, meios de diagnóstico, tratamento e gestão do doente) e depois perceber se se enquadram nos sintomas do doente, o estudante aprende a pensar a partir daquilo que as pessoas transmitem numa consulta ou urgência, por exemplo. Ou seja, o raciocínio parte da queixa do doente e, a partir daí, o estudante deve chegar ao diagnóstico e ao tratamento – exatamente como os profissionais que trabalham nas unidades de saúde. Além de ser muito mais relevante para a prática médica futura, é também de referir que esta abordagem é muito mais próxima do modo como é realizado atualmente o exame de acesso às especialidades médicas (em que os estudantes da escola de medicina da Universidade do Minho têm tido sempre as melhores classificações médias).

O que muda nas grandes áreas curriculares? E como é o ensino?

A nossa diferença já era notória pelo foco nas Artes e Humanidades, que têm um espaço relevante na formação dos estudantes. Agora, o MinhoMD inova também nas quatro grandes áreas em que assenta: **Ciências Básicas, Ciências Clínicas, Ciências dos Sistemas de Saúde e Humanidades**. Destacamos em particular a inclusão das ciências dos sistemas de saúde, em linha com as recomendações internacionais mais recentes, que traz uma abordagem mais focada na obtenção de ganhos em saúde, nomeadamente na qualidade e na eficiência do sistema.

É dentro destas quatro áreas que encontramos sete linhas de pensamento essenciais em todo o percurso e aprendizagem na Escola de Medicina: **Princípios da Medicina; Competências Clínicas; Medicina Preventiva e Saúde Comunitária; Ciências dos Sistemas de Saúde; Tecnologia Aplicada à Medicina; Medicina baseada na Investigação e na Evidência; e Ética, Profissionalismo e Humanidades**.

Ciências Básicas

Fornecer aos estudantes o conhecimento fundamental sobre a estrutura e funcionamento dos órgãos humanos e as suas interações.

Ciências Clínicas

Proporcionar diferentes abordagens ao conhecimento e competências clínicas com base numa conduta centrada no paciente.

Ciências dos Sistemas de Saúde

Reconhecer a abrangência dos Sistemas de Saúde como um sistema complexo que influencia os cuidados de saúde e os resultados em saúde.

Humanidades

Promover a reflexão em temas preponderantes como a ética, o profissionalismo e as humanidades no sentido de formar uma identidade profissional.



Princípios da Medicina

Os futuros médicos deverão aprender os conceitos base sobre o corpo humano e os seus sistemas desde a sua estrutura à função e patologia, bem como as suas interações.



Tecnologia Aplicada à Medicina

Os futuros médicos deverão compreender e adotar a transformação tecnológica que moldará o futuro dos cuidados de saúde.



Competências Clínicas

Os futuros médicos deverão ter competência nas diferentes abordagens aos pacientes e às patologias.



Medicina baseada na Investigação e na Evidência

Os futuros médicos têm a responsabilidade de se manterem atualizados e sustentarem as suas decisões clínicas na evidência científica e com sentido crítico.



Medicina Preventiva e Saúde Comunitária

Os futuros médicos deverão ser pró-ativos na prevenção da doença e na promoção da saúde da sua comunidade.



Ética, Profissionalismo e Humanidades

Os futuros médicos deverão promover uma relação humana com os seus doentes e com os outros profissionais de saúde.



Ciências dos Sistemas de Saúde

Os futuros médicos deverão compreender a complexidade inerente aos Sistemas de Saúde, assim como o seu papel nos mesmos.

Existem muitas diferenças no percurso e no que vais encontrar. O ensino foca-se na **aprendizagem através de casos clínicos** (CBL, na sigla inglesa) e de atividades práticas. O CBL será uma das grandes inovações, com uma presença constante na aprendizagem dos estudantes. Este método permite aproximar os futuros médicos da realidade clínica, colocando-os perante casos existentes e promovendo o raciocínio clínico de forma mais acutilante.

Desde o início que será dedicado tempo ao **Perfil Académico**. Esta nova unidade pretende dar ao estudante um espaço para

o desenvolvimento de projetos, criação de portefólio com o trabalho desenvolvido fora do espaço letivo e promover o contacto com a comunidade e o envolvimento na sociedade.

O ensino continua a procurar o debate e a estimulação da autonomia e investigação de cada estudante, tentando desenvolver as capacidades de aquisição de competências. Importa não esquecer a relevância dos parceiros institucionais, que dão espaço e oportunidade para a aprendizagem em contexto clínico e dão aos estudantes uma experiência imprescindível na formação médica.

Perfil Académico

Desenvolvimento Pessoal

- + Bem-estar e estilos de vida
- + Estratégias de Estudo
- + Tutorias
- + Antropologia Médica

Relação Clínica

- + Comunicação Clínica
- + Psicologia Médica
- + Família e saúde
- + Interprofissionalismo
- + As pessoas e a sua diversidade
- + Qualidade e segurança do doente

Humanidades em Medicina

- + Artes e Expressões
- + Ética e Bioética em Medicina
- + Literatura
- + História da Medicina
- + Medicina Narrativa

Desenvolvimento Profissional

- + Direito Médico
- + Medicina Legal
- + Carreiras Médicas
- + O médico para além do consultório
- + Erro Médico

Pensamento Científico

- + Epistemologia
- + Evidência em Ciência
- + Comunicação científica
- + Literacia em Saúde
- + Saúde das Populações
- + Pensamento crítico

Avaliação



Avaliação formativa

A avaliação formativa consiste num conjunto de avaliações sem caráter sumativo e que visam promover hábitos de estudo e autorregulação.

As avaliações formativas serão disponibilizadas de duas formas na plataforma eletrónica adotada:

1. sessões a pedido que o próprio estudante controla na totalidade (duração, extensão e conteúdos) [a] e
2. agendadas pelo corpo docente [b].

Os conteúdos testados nas sessões agendadas são primariamente os versados no bloco de aprendizagem respetivo, podendo ser incluídas questões sobre conteúdos previamente abordados.



Provas de bloco

Os conteúdos testados nas provas de bloco são primariamente os versados no módulo respetivo, podendo ser incluídas questões sobre conteúdos previamente abordados.

- Os formatos dos questões poderão ser de escolha múltipla (PEM) e de resposta aberta (PRA) ou suas variantes.
- A classificação será qualitativa (excelência/superior/competente/limite/não-competente)



Teste de Progresso

O Teste de Progresso compreende conteúdos referentes a todo o período do ciclo de desenvolvimento (marco). Esta prova visa avaliar os hábitos de aprendizagem contínua e o progresso no desenvolvimento cognitivo do estudante. Os formatos dos questões poderão ser de escolha múltipla (PEM) e de resposta aberta (PRA) ou suas variantes, alinhados sequencialmente em torno de um tema central.

- A Componente A do Teste de Progresso abrange a globalidade dos conteúdos da UC em que está inserido. A Componente A tem uma classificação absoluta não normalizada.
- A Componente B do Teste de Progresso abrange os conteúdos referentes à aprendizagem contínua não incluídos na Componente A. A Componente B tem uma classificação normalizada para a coorte.



Prova de habilidades

Prova em que os estudantes são observados, que consiste em séries de estações que requerem a realização de tarefas práticas como por exemplo a identificação/localização de estruturas morfológicas ou gestos clínicos ou laboratoriais



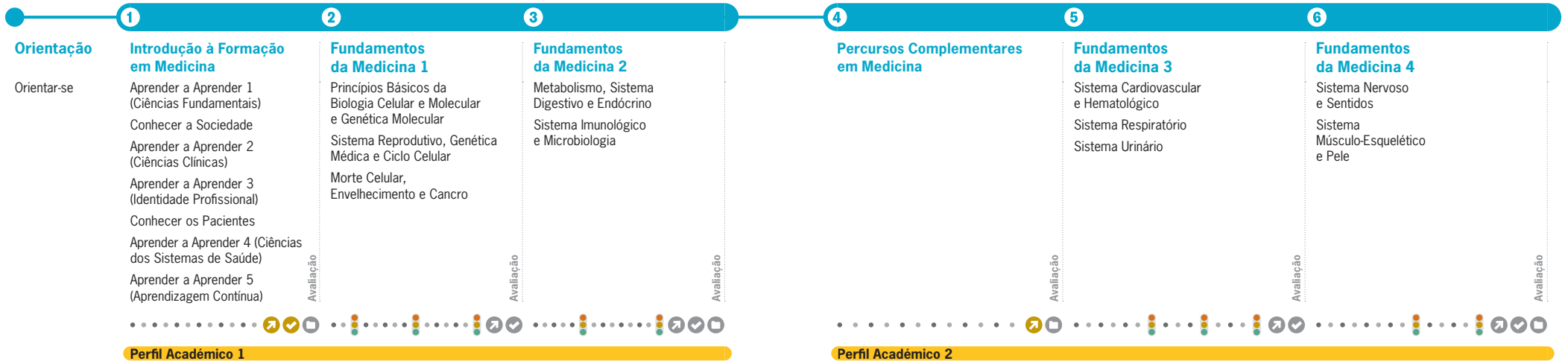
Portefólio

O Portefólio é composto por 3 componentes:

1. **Indicadores Académicos** – relatório dos indicadores académicos ao nível dos Conhecimentos, Habilidades e Atitudes e Comportamentos.
2. **Tarefas** – reportório das tarefas desenvolvidas durante o período de avaliação.
3. **Reflexão crítica sobre o desenvolvimento individual** – consiste num exercício reflexivo sobre o desenvolvimento individual que implica uma observação auto-crítica, o desenvolvimento de um plano de ação para remediação e desenvolvimento pessoal futuro.

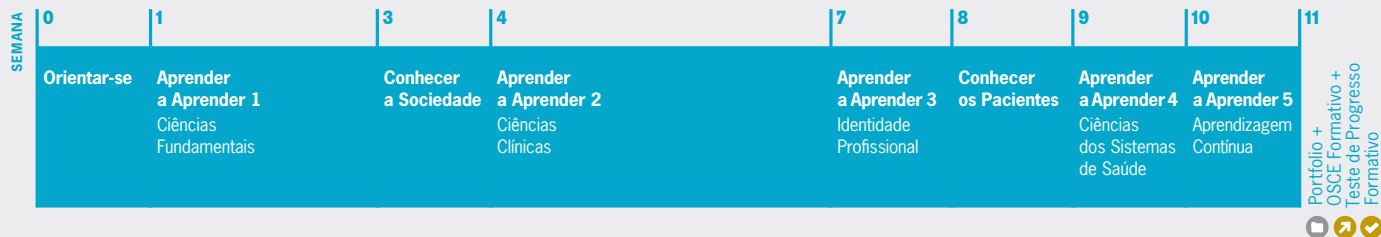
O Portefólio será avaliado por uma comissão de acompanhamento constituída por docentes e Alumni que tomaram uma decisão colegial com base no relatório e defesa do mesmo pelo estudante.

Fundamentos da medicina



1 Introdução à Formação em Medicina

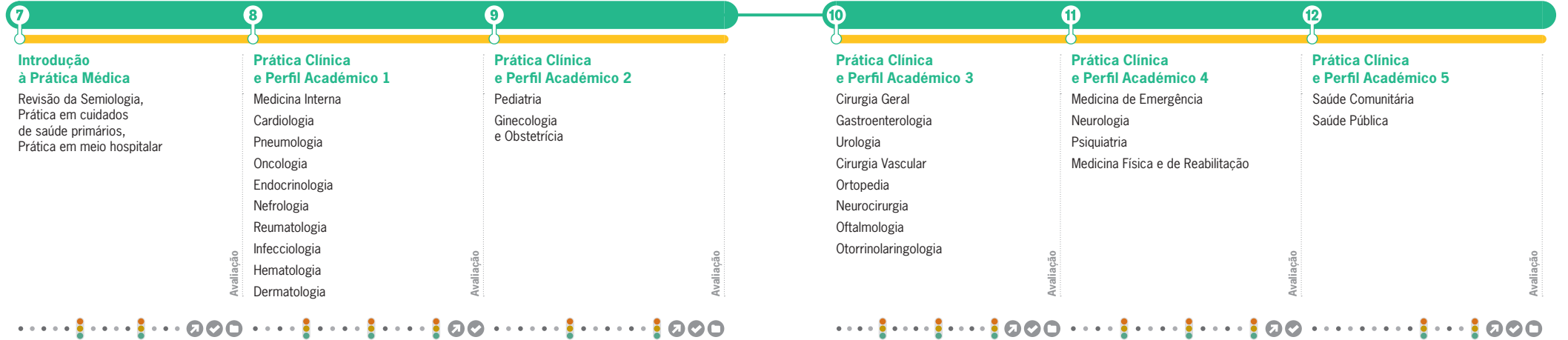
11 semanas



Semana exemplo

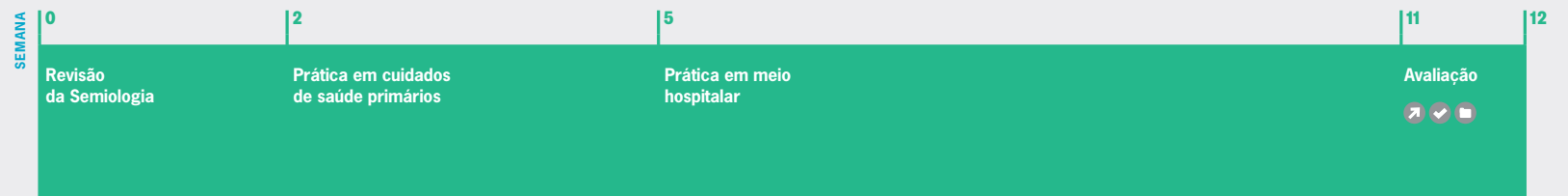
SEGUNDA	TERÇA	QUARTA	QUINTA	SEXTA
CBL	Perfil Académico	CBL	Laboratório	Revisão multidisciplinar
	Laboratório		Seminários	

Prática da medicina

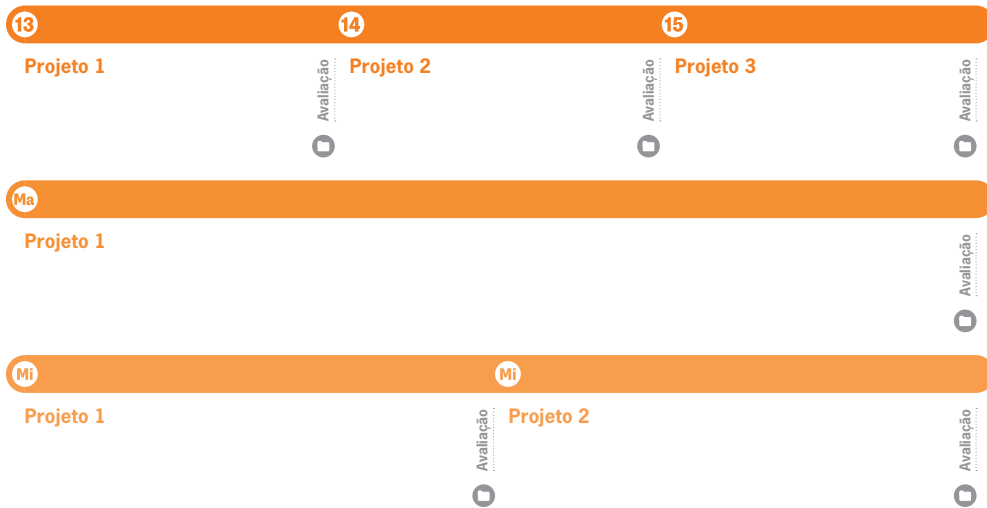


7 Introdução à Prática Médica

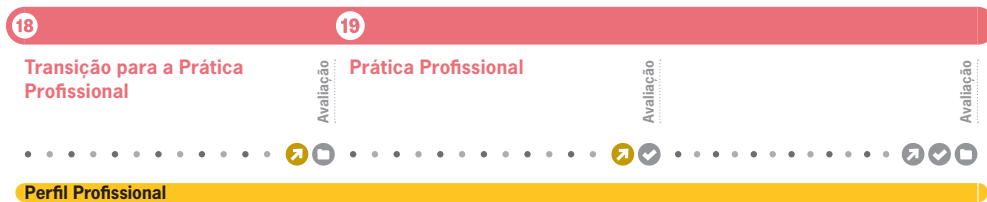
12 semanas



Opção



Estágio



Com o MinhoMD,
tu escolhes
o teu percurso

Escola de Medicina
Universidade do Minho

Campus Gualtar
4710-057 Braga

T 253 604 800

sec-presidencia@med.uminho.pt

www.med.uminho.pt



School of Medicine

ANNUAL REPORT

2021–2022

ANNEX II

ICVS Annual Report 2021

University of Minho

ICVS REPORT 2021

Message of the Director

The Life and Health Sciences Research Institute (ICVS) was established in 2003 to develop biomedical research within the School of Medicine of the University of Minho. Over the last decade, ICVS has developed synergies with several partners with complementary expertise, namely the 3B's Research Group ensuing the establishment of the PT Government ICVS/3B's - Associate Laboratory.

In 2021, the FCT revalidated the statute of the PT Government ICVS/3B's - Associate Laboratory, with the maximum rate of 100. According to the report, this rate reflects the ICVS/3B's scientific, technical and organizational structure that supports public policies and is aligned with the National Infrastructures Roadmap; national and international partnerships with industry; protection of intellectual property, critical for the creation of spin-offs, and involvement in the fight against COVID-19. The ICVS/3B's – LA is also evaluated as being able to attract and support talented PhD researchers, PhD students and PhD researchers, as well as young clinicians at a national and international level, and having the capability to attract international funding.

The ICVS multidisciplinary signature gathers scientists, engineers and clinicians in a unique scientific and technological platform with expertise in different fields such as bioimaging, cell and molecular biology, deep learning and computer science, electrophysiology, epidemiology and statistics, functional MRI, medical electronics, microbiology ABSL2/3, motor and cognitive animal behavior, oncobiology and surgical endoscopy.

The ICVS, together with its several Spin-offs, contributes as a key stakeholder for the upholding of the competitive Cluster in Biomedical Science, Technology and Healthcare, steered by the School of Medicine, including the Clinical Academic Centre – Braga Association (2CA-Braga) devoted to performing clinical research, the Digital Medical Center P5 and B.ACIS.

The original scientific organization of the ICVS based on the developing of projects under four Research Domains (Microbiology & Infection, Neurosciences, Population Health and Surgical Sciences) was rethought during 2021. The ICVS community after a lively opened discussion agreed that this original organization do not sustain the current dimensions and growth of the ICVS and therefore, the ICVS scientific organization was re-organized in projects running within smaller thematic teams. The transition phase for the implementation of this new organization will occur during 2022.

Aligned with its vision to advance scientific knowledge and value, in the year 2021, the ICVS observed an increase of 19% in the number of scientific publications and a dramatic increase of 175% in the recruitment of international funding.

Major Achievements

Despite the constraints still imposed by the pandemic in 2021, the ICVS community kept motivated and published 389 manuscripts in peer-reviewed journals, setting a new milestone in the ICVS productivity. From these manuscripts, around 60,20% were published in quartile 1, with a mean impact factor of 5.76, with 34 papers published in journals with an impact factor greater than 10. In the same trend, ICVS researchers authored 5 books/book chapters internationally edited. Moreover, the ICVS researchers were called to give 78 talks (43.6% in international Events/Universities), whereas 31 contributed in relevant Editorial activities (Editor-in-Chief, Associate Editor) of international peer reviewed periodicals.

Importantly, the ICVS increased its contribution for post-graduation with 14 and 26 students concluding their MSc thesis and PhD thesis, respectively.

Currently, the ICVS runs 97 research projects with 18 million euros; 21 of these I&D projects started in 2021 (9 international), which represented over 5,5 million euros recruited (with 60% from abroad). It deserves a special mention that ICVS researchers managed 59 Clinical Trials in 2CA, from which 38 were interventional and 21 were observational.

Organization of the ICVS

Research Domains

MIRD Description

The Microbiology and Infection Research Domain (MIRD) aims to promote basic, translational, and clinical research with the goal of identifying novel prognostic, diagnostic and therapeutic targets and developing personalized medical interventions for infectious diseases. The global burden of infectious diseases, still a leading cause of death and disability worldwide, is magnified by persistent infections, epidemics of new and old infectious diseases (one emerging example being the recent global pandemic of COVID-19), the expanding number of immunocompromised patients and the increasing number of hospital-acquired infections. The MIRD is committed to tackle these challenges by pursuing two main complementary strategies: i) basic research to understand biological mechanisms and to identify novel targets for prognostics, diagnostics and therapy, and ii) translational research that explores relevant biological processes and assess their clinical applicability in patients.

Research strategies within the MIRD range from systems biology approaches to consolidated cellular and animal models, and studies in patients at-risk or suffering from infection, to understand the molecular and cellular mechanisms that orchestrate the host-pathogen interaction and define the immune response and the outcome of infection. The dissection of the virulence traits and the determinants of drug resistance, as well as the evolutionary properties of the pathogens, and their dynamic relationships with the host and the environment is driving significant advances in our understanding of the pathogenesis of infectious diseases. By incorporating this information within a framework comprising distinct layers of inter-individual human variation (genetic, epigenetic, metabolic, and at the level of the microbiome), MIRD has harnessed the capacity to deliver innovative and integrated personalized diagnostic and therapeutic approaches for infectious diseases, which include patient stratification approaches based on host genomics, and novel strategies for the design of vaccines and immunotherapeutics, both for common and neglected infectious diseases.

NERD Description

The Neurosciences Research Domain (NeRD) aims to understand neural structure and function in normal conditions and disease, using a multidisciplinary and integrative approach, from fundamental to clinical studies. Our scientists strive to comprehend how complex neural circuits work, how these are shaped and reshaped during life by different environmental factors and how this drives behaviour. Also, we are focused on understanding the neurobiological mechanisms implicated in several neurodevelopmental and neurodegenerative disorders, as well as in evaluating the interplay between the nervous and the immune systems.

Our strategy is to link fundamental and clinical research to understand disease mechanisms better and identify novel therapeutic opportunities. To achieve this, we benefit from a vast logistic infrastructure (labs and equipment) and a team of scientists with a broad spectrum of backgrounds (biochemists, molecular biologists, statisticians, mathematicians, biomedical and electronic engineers, psychologists, veterinaries, pharmacists and MDs from neurology, neuroradiology, psychiatry, internal medicine, endocrinology, surgery, neonatology, paediatrics and medical genetics), thus allowing a multimodal approach to the research questions under study. The team works together in a variety of projects that address the neurobiological basis of behaviour (genes, cells and circuits), neurodevelopment, neuroimmunology, neurodegeneration, neural regeneration and novel therapeutic approaches, benefiting from a fully equipped animal behaviour facility, optogenetics and electrophysiology core, biophotonics, fMRI and neurofeedback.

The NeRD provides a vibrant environment for training and career development for its researchers, relying on the continuous effort to find the best compromise between individual interests and independence, and collaborative work. Importantly, the close interplay with the Clinical Academic Center (2CA-Braga) allows bridging, within the same infrastructure, molecular, cellular and preclinical work to clinical applications. In this way, we hope to take part in the fantastic challenge

of contributing to a better understanding of the Nervous System in health and disease to improve its functioning.

PHRD Description

The Population Health Research Domain (PopHealth) was established in 2018 to foster research and training in Epidemiology, Public Health and related areas. Aligned with the School of Medicine's goals, its mission is to contribute to improve health promotion and healthcare delivery to regional and national populations.

PopHealth's research is supported by a multidisciplinary team with expertise in psychology, educational sciences, nutrition, epidemiology, immunology, endocrinology, digital medicine, statistics, mathematical modelling and economics. These researchers work in close cooperation with other ICVS Research Domains, the School of Medicine, affiliated healthcare providers and the Clinical Academic Center.

Research in the PopHealth domain targets two main areas: specific chronic disorders and health promotion. Projects on chronic disorders address the assessment/epidemiology and management of non-communicable disorders (such as asthma, obesity, hypertension, chronic pain, multiple sclerosis, diabetes and neoplasia), and infectious diseases (such as HIV/AIDS and tuberculosis). Projects on health promotion address determinants of healthy ageing, strategies to cope with chronic stress in the working environment, and the impact of nutritional supplements in fetal and newborn development.

The PopHealth Research Domain is expected to generate knowledge and tools (educational, informatics, technological) that health authorities and stakeholders may use to improve health-related policies.

SSRD Description

The Surgical Sciences Research Domain (SSRD) is composed by an interdisciplinary team that includes scientists from the Biology/Biochemistry fields, Biomedical engineers and Medical doctors of different specialties.

The main scientific aims of the Surgical Sciences Research Domain (SSRD) are to: i) understand the mechanisms that regulate development and differentiation of embryonic cells/organs; ii) identify new risk factors for cancer, molecular markers of diagnostic, prognostic and response to cancer therapy; iii) explore novel surgical techniques to decrease aggressiveness of current interventions; iv) develop technically innovative solutions to optimize surgical procedures; v) provide basic, translational and surgical training.

A better understanding of the pathophysiology of diseases is crucial to uncover novel and safer therapeutic strategies for congenital and malignant diseases. Several of the mechanisms involved in embryo development are common to disease conditions and injury repair. Thus, the SSRD studies the mechanisms underlying organ development, with special emphasis on macrophages and neuroendocrine cells. Cancer, as a multifactorial disease, also uses most of the embryonic mechanisms to growth. Aiming to offer new personalized therapies to cancer patients, the SSRD screens for new biomarkers of risk to develop cancer, and novel markers of diagnostic and response to cancer therapy.

In surgery, repairing (congenital disorders) and ablative/resection (malignant disorders) are the most common procedures. With the goal to minimize surgical aggression, the team explores new scarless interventions through Natural Orifice Transluminal Endoscopic Surgery (N.O.T.E.S.), as alternative to current methodologies. Since surgery is increasingly dependent on imaging, using 3D images and endoscopy, the team designs and develops innovative technical solutions (personalized prosthesis and surgical plans) to optimize clinical procedures. Some of these translational discoveries are being transferred to our UM Spin-off (iSurgical3D, Lda.) that is already selling medical materials in Europe. Additionally, the SSRD offers and extensive international post-

graduation program, from basic and translational science to minimally invasive surgery (engaging over 500 surgeons per year).

ICVS Collaboration Networks

In 2021, despite the pandemic situation, the ICVS continued its efforts to improve the collaborative network. ICVS Researchers were successful in maintaining the open communications channels with their national and international collaborators supporting and promoting the opportunities for research collaborations and for mobility of graduate students.

The pandemic situation, its uncertainty and different lockdown periods experienced internationally, jeopardized institutional efforts and common events with other institutes. Nevertheless, ICVS Researchers maintained their contacts and established new ones to promote and maintain an active and lively scientific network. The top 3 countries with more ICVS collaborations in 2021 were USA, Brazil and Sweden. Numerous collaborations were established or maintained within Europe particularly with France, Spain, Germany, Belgium and The Netherlands.

At the national level, the ICVS has strengthened its long-standing collaborations with “Instituto de Investigação e Inovação em Saúde da Universidade do Porto (I3S)”, “Centro de Neurociências e Biologia Celular (CNC), Faculdade de Medicina da Universidade de Coimbra”, e ainda com o “International Iberian Nanotechnology Laboratory (INL)” reinforcing the relevance of the ICVS in the North region hub of research in biomedical sciences.

Within the Portuguese Government program of Recovery and Resilience Plan (RRP), the ICVS, integrated along with 98 consortium partners, an application proposal entitled “Health from Portugal (HfPT)” for a funding for ICVS of over 1 million euros.

Another important aspect is the ICVS articulation with the Portuguese Roadmap of Research Infrastructures. Particularly important, as the coordinator of the Biology hub, in the consortium

PT-OPENSREEN - National Infrastructure for Chemical Biology and Genetics, an application for research infrastructures was funded, resulting in approximately 500k for equipment to the ICVS.

Full Report

1 - Expertise-based Services

Specialized services and/or contracts with national/international entities (ongoing in 2021):

- 1) Baltazar, F. | New G Lab Pharma, Inc. | USA | Study the anticancer effect of 3-bromopyruvate (3- BrPa) in animal model systems of Leukemia;
- 2) Bessa, J. | Portugal | TECNIMEDE - Sociedade Técnico Medicinal, SA | Estudo das propriedades antidepressivas do Pirlindol num modelo animal de Chronic Mild Stress - Fase II;
- 3) Cerqueira, J. | Portugal | Biogen Portugal | Impact of dimethyl fumarate on cognition: animal studies;
- 4) Correia-Pinto, J. | Germany | Storz | KidneyNAV - Navigation for the kidney puncture;
- 5) Costa, A. | EXOGENUS THERAPEUTICS, S.A. | Portugal | Consultancy and technical services in the area of lung inflammation;
- 6) Ludovico, P. | Amicus Therapeutics UK LTD | England | Extracellular Vesicles as Potential Biomarkers in Fabry disease Progression;
- 7) Maciel P. | Casma Therapeutics | UK | Endogenous TFEB induction as a strategy for the treatment of protein aggregation - related neurodegenerative diseases in *C. elegans*;
- 8) Maciel P. | France | Neurolix, Longitudinal Study of Symptom Development and Disease-Modifying Products in a Mouse Model of Rett Syndrome;
- 9) Ribeiro, F. | Sea4Us | Portugal | Screening the antinociceptive effects of new marine-based compounds;
- 10) Sousa, J. | Portugal | ASTRAZENECA – Produtos Farmacêuticos, Lda | Epi-Asthma: Prevalence and characterisation of Asthma patients according to disease severity in Portugal;

11) Sousa, J. | Portugal | GLAXOSMITHKLINE - PRODUTOS FARMACÊUTICOS, LDA| GSK | Exploring clinical predictors of COPD exacerbation in a community cohort.

Consulting activities (contracted in 2021):

- 1) Costa S. | Design, development and analysis of PCLS cultures | Exogenus Therapeutics, SA;
- 2) Espírito-Santo A. | Clinical Consulting activities regarding Hematological disease universe promoted by pharmaceutical Industries partners;
- 3) Veiga I. | Development and validation SARS-CoV-2 RT-PCR diagnostic kit and one RNA extraction kit for the biotechnology company NZYTech, Lda | Expert consultancy, in collaboration with B.ACIS.

Organization of postgraduate courses (2021):

- 1) Bruno Costa & Luísa Pinto | Being a Bio-Entrepreneur: March 2-19 | www.med.uminho.pt/en/post-graduation/courses/bio-entrepreneur;
- 2) Bruno Costa & Nuno Osório | Bioinformatics In Health Sciences: November 8-26 | www.med.uminho.pt/en/post-graduation/courses/bioinf;
- 3) Bruno Costa, Fátima Baltazar, Rute Moura & Sandra Costa | Fundamentals in Genetics, Development and Neoplasia: October 18 - November 5 | www.med.uminho.pt/en/post-graduation/courses/fgdn;
- 4) Carla Rolanda & Arjun Koch | EMR & ESD workshop: hands-on training with live porcine models – September 9-10 | <https://b-acis.pt/workshops/emr-esd-workshop-eagen-esge-braga/>;
- 5) Claudia Nobrega, Belém Sampaio-Marques, Margarida Correia Neves & Paula Ludovico | Cell Functional and Phenotypical Analysis: March 2-12 | www.med.uminho.pt/en/post-graduation/courses/cytometry;

- 6) Egídio Torrado, Jorge Pedrosa & Agostinho Carvalho | Fundamentals in Immunology and Infection: September 27 - October 15 | www.med.uminho.pt/en/post-graduation/courses/fii;
- 7) Fernanda Marques, Hugo Almeida & Tiago Gil Oliveira | Fundamentals in Neuroscience: September 6-24 | www.med.uminho.pt/en/post-graduation/courses/fin;
- 8) Hugo Leite-Almeida & Ioannis Sotiropoulos | Pathogenesis of Neurodegenerative Diseases: April 26-30 | www.med.uminho.pt/en/post-graduation/courses/neurodegeneration;
- 9) Jaime Correia de Sousa, Luís Figueiredo & Pedro Teixeira | Epidemiology: November 30, 2020 - January 22, 2021 | www.med.uminho.pt/en/post-graduation/courses/epidemiology;
- 10) Jaime Correia de Sousa, Luís Figueiredo & Pedro Teixeira | Epidemiology: November 29, 2021 - January 22, 2022 | www.med.uminho.pt/en/post-graduation/courses/epidemiology;
- 11) Luís Jacinto & Patrícia Monteiro | Computational Data Analysis: May 20-28 | www.med.uminho.pt/en/post-graduation/courses/CDA;
- 12) Magda Castelhana-Carlos, Alice Miranda & Margarida Correia-Neves | Laboratory Animal Science: February 15 - March 1 | www.med.uminho.pt/en/post-graduation/courses/LAS;
- 13) Nuno Osório & Ana Falcão | EMBO Practical Course: Single cell genomics: Get started! | August 30 - September 05 | <https://b-acis.pt/workshops/embo-practical-course-single-cell-genomics-braga/>;
- 14) Patrícia Maciel | Research Methodologies: March 23 - April 16 | www.med.uminho.pt/en/post-graduation/courses/research-methodologies;
- 15) Patricio Costa | Biostatistics in Health Sciences: January 25 - February 12 | www.med.uminho.pt/en/post-graduation/courses/biostat;

16) Rui Miguelote | Avaliação e orientação do casal infértil | June 11-12 | <https://b-acis.pt/workshops/orientacao-casal-infertil-2021>.

Management/Clinical Governance of Other Entities

- 1) Bulhões, C. | Family Health Unit Coordinator (USF Vida+);
- 2) Costeira, M. | Clinical Coordinator of EU's project in Guinea-Bissau PIMI II;
- 3) Ferreira, P. | Founder and SCO of start-up Iplexmed;
- 4) Figueiredo L. | Coordinator of the North Portugal (ARS Norte) Urological Emergency Services;
- 5) Horta A. | Secretary of the Board of the Portuguese Association for the Clinical Study of AIDS (APECS);
- 6) Pêgo J. | Vice-President 4LifeLab CoLab;
- 7) Pereira, V. | AI4MED Imaging Solutions;
- 8) Rodrigues A. | Executive Director, Centre for Health Evaluation and Research, National Association of Pharmacies (CEFAR);
- 9) Rui Miguelote | Direction of the Associação Portuguesa de Diagnóstico Pré-Natal.

2 - Scientific Research

Master & PhD (concluded in 2021)

1) Master

- 1.1. Carlos Manuel Campos Marques Master in Health Sciences | School of Medicine, University of Minho. A novel RNA-targeted therapeutic approach for Alzheimer's disease and Down syndrome. Supervisors: Ioannis Sotiropoulos | Joana Silva.

- 1.2. Daniela Raquel Cunha Garcia Master in Health Sciences | School of Medicine, University of Minho. Impact of astrocytic calcium suppression in the pathogenesis of Machado-Joseph disease. Supervisors: Sara Silva | Patrícia Maciel.
- 1.3. Gisela Cristina Vieira Armada Master in Health Sciences | School of Medicine, University of Minho. Assessing Sorting Nexins role in the nervous system: Insights from stressed synapse. Supervisors: Neide Pereira | André Miranda.
- 1.4. Joana Filipa Barbosa Pinheiro Master in Health Sciences | School of Medicine, University of Minho. Role of RKIP protein in the modulation of lung cancer cell metabolism. Supervisors: Olga Martinho | Sara Granja.
- 1.5. João Vítor Lemos Afonso Master in Health Sciences | School of Medicine, University of Minho. Interplay between adipose-derived stem cells and inflammatory mediators: impact on neurite outgrowth and vascular morphogenesis. Supervisors: António Salgado | Nuno Silva.
- 1.6. Maria Antónia Pereira de Barros Master in Health Sciences | School of Medicine, University of Minho. Ansiedade dentária, dor e mindfulness em pacientes submetidos a procedimentos dentários. Supervisor: Patrícia Pinto.
- 1.7. Maria Carolina Antunes Pereira Master in Health Sciences | School of Medicine, University of Minho. Immunometabolic Regulation of Antifungal Immunity by Itaconate. Supervisor: Agostinho Carvalho | Cristina Cunha.
- 1.8. Maria Gabriela Pedrosa Ribeiro de Freitas Master in Health Sciences | School of Medicine, University of Minho. Oncogenic interplay between RKIP and PD-L1 in lung cancer: implications to immunotherapy response. Supervisor: Olga Martinho.
- 1.9. Raquel Alexandra Gomes Fernandes Master in Health Sciences | School of Medicine, University of Minho. The role of GSK-3 inhibition in lung injury. Supervisor: Sandra Costa.

- 1.10. Rita Caridade Silva Master in Health Sciences | School of Medicine, University of Minho. Combining Stem Cells Secretome and N-acetylcysteine to Parkinson's Disease modeling and repair. Supervisors: Fábio Teixeira | António Salgado.
- 1.11. Rogério Cristiano Rocha de Castro Master in Health Sciences | School of Medicine, University of Minho. Deciphering the mechanisms underlying the role of interleukin-10 in cognitive function. Supervisors: Susana Roque | Palmira Silva.
- 1.12. Sara Raquel da Silva Ferreira Master in Health Sciences | School of Medicine, University of Minho. HIF-1 α mediated regulation of antifungal immunity in Chronic Obstructive Pulmonary Disease. Supervisors: Agostinho Carvalho | Cristina Cunha.
- 1.13. Sónia Beatriz Alves Gomes Master in Health Sciences | School of Medicine, University of Minho. Characterization of the mechanisms underlying behavioral alterations in interleukin 10 KO mice. Supervisors: Susana Roque | Palmira Silva.
- 1.14. Tiago André Moreira Gomes Master in Health Sciences | School of Medicine, University of Minho. Determination of the appropriate dosage of Adipose tissue-derived Stem Cell secretome for Spinal Cord Injury Regenerative Medicine Approaches. Supervisors: António Salgado | Eduardo Gomes.

2) PhD

- 2.1. Ana Isabel de Araújo Coelho PhD in Health Sciences | School of Medicine, University of Minho. The human brain connectome in aging: MRI biomarkers of cognitive preservation and decline. Supervisor: Nuno Sousa.
- 2.2. Ana Margarida Ferreira da Cunha PhD in Health Sciences | School of Medicine, University of Minho. Chronic pain impact on decision-making - the role of the mesocorticolimbic system. Supervisor: Hugo Almeida.

- 2.3. Carla Sofia Martins Calçada PhD in Aging and Chronic Diseases | School of Medicine, University of Minho. Genetic determinants of malaria therapeutics' cross resistance with novel compounds. Supervisors: Isabel Veiga | Maria Silva.
- 2.4. Carolina Alves Ferreira PhD in Health Sciences | School of Medicine, University of Minho. Immunometabolic crosstalk between host and pathogen: unveiling novel therapeutic approaches for visceral leishmaniasis. Supervisors: Ricardo Silvestre | David Learmonth.
- 2.5. Célia Margarida Viegas Domingos PhD in Health Sciences | School of Medicine, University of Minho. Characterization of a wearable monitoring system of physical activity as a surrogate of brain structure and function in older populations. Supervisors: Nadine Santos | José Pêgo.
- 2.6. Chrysoula Dioli PhD in Aging and Chronic Diseases | School of Medicine, University of Minho. Chronic stress and glucocorticoid actions in brain plasticity and Tau pathology. Supervisors: Ioannis Sotiropoulos | Ana Rego | Sheela Vyas.
- 2.7. Cláudia Raquel Ferreira Marques PhD in Health Sciences | School of Medicine, University of Minho. Assessing the therapeutic role of the secretome from mesenchymal stromal cells in genetic models of Parkinson's Disease based on the overexpression of alpha-synuclein. Supervisors: António Salgado | Rui Sousa.
- 2.8. Cláudia Sofia Serre Miranda PhD in Health Sciences | School of Medicine, University of Minho. The crosstalk between immune mediators and cognition. Supervisors: Margarida Correia-Neves | Joana Palha.
- 2.9. Cristina de Fátima Sousa da Mota PhD in Health Sciences | School of Medicine, University of Minho. Individual performance in cognitive aging and deficit prevention by cognitive training in the rat: integration of structural, molecular and functional correlates. Supervisors: João Cerqueira | João Sousa.

- 2.10. Deisy Mara Gomes da Cruz Rocha Silva PhD in Health Sciences | School of Medicine, University of Minho. Phenotypical and molecular determinants of antimicrobial resistance: the evolutionary. Supervisors: Nuno Osório | Margarida Saraiva.
- 2.11. Emanuel José Magalhães Novais PhD in Medicine | School of Medicine, University of Minho. Contribution of Aging and Senescence to Intervertebral Disc Degeneration. Supervisors: Makarand Risbud | António Salgado.
- 2.12. Fernando Emanuel Dias Correia PhD in Medicine | School of Medicine, University of Minho. Validation of a Novel Intervention Based on Digital Biofeedback for Home-based Rehabilitation after Hip or Knee Replacement. Self-proposed thesis.
- 2.13. Jaime Daniel Pacheco Martinho Vilaça PhD in Medicine | School of Medicine, University of Minho. Minimal Invasive Surgery: Contribution of three dimensional image on single-site endoscopic surgery. Supervisors: Jorge Correia-Pinto | Pedro Teixeira.
- 2.14. Joana Catarina Pereira de Sousa PhD in Health Sciences | School of Medicine, University of Minho. Suppression of Machado-Joseph disease pathogenesis by serotonergic signalling: the contribution of serotonin receptors. Supervisors: Andreia Castro | Luísa Pinto.
- 2.15. João Luís Gomes da Fonseca PhD in Health Sciences | School of Medicine, University of Minho. Surgical navigation system for percutaneous renal access: electromagnetic guidance and imaging working together. Supervisors: Estêvão Lima | João Vilaça.
- 2.16. Jorge Diogo Cruz Ramos da Silva PhD in Medicine | School of Medicine, University of Minho. Insights from *Caenorhabditis elegans* models into neurogenetic disorders of the motor system: from fundamental to translational research. Supervisors: Patrícia Maciel | Diane Merry.

- 2.17. Luís António Ferreira Rocha PhD in Health Sciences | School of Medicine, University of Minho. Development of vascularizable hydrogels to promote spinal cord injury repair: from RGD to mimetic ligands. Supervisors: António Salgado | David Learmonth.
- 2.18. Luísa da Rocha Santa Marinha PhD in Medicine | School of Medicine, University of Minho. Lipid signaling determinants of physiology and pathology along the longitudinal hippocampal axis. Supervisors: Tiago Gil Oliveira.
- 2.19. Olena Radomska Oliveira PhD in Health Sciences | School of Medicine, University of Minho. Risk factors associated with multidrug-resistant tuberculosis transmission in Portugal. Supervisors: Margarida Correia-Neves | Teresa Rito | Raquel Melo.
- 2.20. Pedro Filipe Alves Peixoto PhD in Medicine | School of Medicine, University of Minho. Immune Suppression During Chronic Lymphocytic Choriomeningitis Virus Infection and Response to Unrelated Ectromelia Virus Infection. Supervisors: Luis Sigal | Margarida Correia-Neves.
- 2.21. Pedro Nuno Ferreira Pacheco da Silva Brito PhD in Medicine | School of Medicine, University of Minho. Evaluation of the Systemic Pro-inflammatory Response as a Limiting Factor on the Efficacy of Intravitreal Treatment Agents for Diabetic Macular Edema. Supervisors: Rufino Silva | Jorge Correia-Pinto.
- 2.22. Rui Augusto Ribeiro Lima PhD in Health Sciences | School of Medicine, University of Minho. Molecular Therapies to Repair the Injured Spinal Cord. Supervisors: Nuno Silva | Luísa Pinto.
- 2.23. Sofia Pereira das Neves PhD in Aging and Chronic Diseases | School of Medicine, University of Minho. Exploring the role of astrocytes in the pathophysiology of multiple sclerosis. Supervisors: Fernanda Marques | Rita Teodoro.
- 2.24. Sónia Maria Gomes de Amaral Ferreira PhD in Health Sciences | School of Medicine, University of Minho. Cognitive and emotional regulation in stress and obsessive-compulsive disorder. Supervisors: Pedro Morgado | José Pêgo.

- 2.25. Teresa Raquel Guerra Barroso PhD in Health Sciences | School of Medicine, University of Minho. Development of a novel nanoparticle-antibody based product for the detection of Mycobacterium tuberculosis by "lab-on-chip" diagnostic platforms. Supervisors: Paulo Freitas | Jose Rey | Jorge Pedrosa.
- 2.26. Tiago Pacheco Teixeira Monteiro PhD in Medicine | School of Medicine, University of Minho. Intrastromal corneal ring segment implantation for keratoconus treatment: manual technique versus femtosecond laser assisted technique. Supervisors: José Sánchez | Jorge Correia-Pinto.

International visiting researchers

- 1) Ana Campos Rios | Spanish | Supervised by Patricia Monteiro | Three months fellowship of IACOBUS program to evaluate the role of potassium channels in a mouse model of autism;
- 2) Cintia Petronacci | Spanish | Supervised by Fátima Baltazar | One month fellowship to evaluate the prognostic value of MLH1, MGMT and p16 gene methylation in oral squamous cell carcinoma;
- 3) Cláudia Fançony | Angolan | Supervised by M. Isabel Veiga | Eight months fellowship with the research project: Antimalarial drug resistance: explore the molecular mechanisms behind it aiding on optimized surveillance tools;
- 4) David Ferreiro García | Spanish | Supervised by Nuno S. Osório | Three months (fellowship (ED481A 2020/192) to study the evolution of HIV-1 at the molecular level resorting to computational evolutionary analysis of genetic data from HIV-1 viruses isolated from human hosts;
- 5) Dimitrios Triantis | Greek | Supervised by Paula Ludovico and Belém Sampaio-Marques | One month exchange of the National Association of Medical Students to study on the effects of food supplements on cellular aging: use of the yeast chronological aging model;

- 6) Enas Al-khlifeh | Jordanian | Supervised by Paula Ludovico and Belém Sampaio-Marques | Five day Erasmus + traineeship programme to study the yeast *Saccharomyces cerevisiae* as a cellular aging model;
- 7) Hercules Campos | Brazilian | Supervised by Anna Quialheiro | Fifteen days technical visit fellowship to present a doctoral project with rural older adults and life purpose;
- 8) Marcelina Wezik | Polish | Supervised by Carina Soares-Cunha | Seven months internship to study the involvement of endogenous opioids in the ward processing;
- 9) Maxime Gomez | French | Two weeks Erasmus + traineeship programme to study on the effects of food supplements on the yeast chronological aging model;
- 10) Rabia Bice | Turkish | Supervised by Ioannis Sotiropoulos | Six months to evaluate the impact of Tau deletion in CRH neurone in the adult brain;
- 11) Sara Barsanti | Italian | Supervised by João Oliveira | Five month placement on the role of astrocyte calcium in behavior;
- 12) Stephanie Maia Acuña | Brazilian | Supervised by Ricardo Silvestre | Twelve months fellowship to evaluate the immunometabolic Networks during dendritic cell-Leishmania interactions;
- 13) Tom Dequeker | Belgian | Supervised by Nuno Silva | One month under the Research Exchange da International Federation of Medical Students' Associations (IFMSA) Program to evaluate a Novel Therapy for Spinal Cord Injury Repair.

Oral and/or poster presentation presented in meetings

- 1) Abrantes M., Cabral PD., Domigues T., Borme J, Jacinto L, Alpuim P. | Attomolar label-free dopamine detection with aptamer functionalized graphene field-effect transistors | NanoPortugal Conference (NanoPT) 2021 | September 16-17 | Braga, Portugal;

- 2) Abrantes M., Rodrigues D., Domingues T., Monteiro P., Borme J., Alpuim P. & Jacinto L. | Dopamine detection using graphene aptasensors | Portuguese Society for Neuroscience meeting (SPN) 2021 | December 1-3 | Coimbra, Portugal;
- 3) Afonso J., Lima R., Gomes H., Moutinho J., Gonçalves C., Costa M., Santos L., Longatto A. & Baltazar F. | Upregulation of Hexokinase II (HKII) impacts survival of bladder cancer patients: Effects of HKII inhibition by 2-deoxy-D-glucose | 27th Porto Cancer Meeting | May 20-21 | Online;
- 4) Afonso J., Lima R., Gomes H., Moutinho J., Gonçalves C., Costa M., Santos L., Longatto A. & Baltazar F. | Hexokinase II (HKII) is a prognostic biomarker for bladder cancer patients: Antitumoral activity of the HKII inhibitor 2-deoxy-D-glucose | EACR 2021 Virtual Congress: Innovative Cancer Science | June 9-12 | Online;
- 5) Afonso J., Lima R., Gomes H., Moutinho J., Gonçalves C., Costa M., Santos L., Longatto A. & Baltazar F. | Upregulation of Hexokinase II (HKII) impacts survival of bladder cancer patients: Effects of HKII inhibition by 2-deoxy-D-glucose | 27th Porto Cancer Meeting | May 20-21 | Online;
- 6) Afonso J., Rocha L., Silva D., Santos D., Campos JO., Gomes E., Silva N. & Salgado AJ. | Interplay between adipose-derived stem cells and inflammatory mediators: impact on neurite outgrowth and vascular morphogenesis | Sociedade Portuguesa de Neurociências 2021 | December 1-3 | Coimbra, Portugal;
- 7) Alves-Peixoto P., Canto-Gomes J., Silva C., RB-Silva R., Horta A., Sigal L.J., Campbell K.S., Correia-Neves M. & Nobrega C. | The phenotype of Natural Killer cells during HIV infection in patients undergoing antiretroviral therapy | Reunião da Sociedade Portuguesa de Imunologia | November 11 | Online;
- 8) Alves-Peixoto P., Canto-Gomes J., Silva C., RB-Silva R., Horta A. et al. | HIV-infected patients undergoing antiretroviral therapy have persistently reduced numbers of Natural Killer cells

with an altered phenotype | XVII Congresso da Sociedade Ibérica de Citometria | June 14-18 | Oporto, Portugal;

- 9) Andrade J., Andrade R., Xará-Leite F., Valente C., Pinho P., Nunes J., Dantas D., Gonçalves A., Oliveira T., Pereira BS. & Espregueira-Mendes J. | Diagnostic accuracy of MRI for osteochondral lesions of the talus: a systematic review and a meta-analysis | 13th Biennial ISAKOS Congress | November 27 – December 1 | Online;
- 10) Andrade R., Dias J., Cardoso C., Valente C., Pereira R., Rebelo-Marques A., Proença T., Lamas P., Cordeiro N., Silva A. & Espregueira-Mendes J. | Isokinetic deficits at 6 months after ACL reconstruction influence the rate of reinjuries and activity level | IOC World Conference on Prevention of Injury & Illness in Sport | November 25-28 | Monaco, Monaco;
- 11) Araújo B., Caridade R., Magalhães R., Larrat B., Mériaux S., Pêgo AP. & Teixeira FG. | Targeting Parkinson's Disease Brain Affected Areas by the Local Delivery of Multimodal Pharmacological Strategies | ENCODS 2021 | June 4-6 | Online;
- 12) Areias AC., Castro I., Sampaio-Marques B., Sousa H., Fernandes A., Sanchez-Maldonado JM., Cunha C., Carvalho A., Sainz J. & Ludovico P. | Association of ATG10 functional genetic variants in Acute Myeloid Leukemia | European Hematological Association | June 9-17 | Online;
- 13) Barata-Antunes S., Pinheiro B., Pinho T., Lima R., Cibrão J., Campos E., Coimbra B., Teixeira F., Silva D., Marote A., Araújo B., Sousa R., Silva B. & Salgado AJ. | Developing ligand-functionalized liposomes to deliver mesenchymal stem cells secretome for Parkinson's disease | Sociedade Portuguesa de Neurociências 2021 | December 1-3 | Coimbra, Portugal;
- 14) Barata-Antunes S., Pinheiro B., Pinho T., Lima R., Cibrão J., Campos E., Coimbra B., Teixeira F., Silva D., Marote A., Araújo B., Sousa R., Silva B. & Salgado AJ. | Developing lipid-based nanoparticles for systemic delivery of mesenchymal stem cells secretome in Parkinson's disease Regenerative Medicine | 6th World Congress TERMIS 2021 | November 15-19 | Maastricht, Netherlands;

- 15) Barbosa M., Santos M., de Sousa N., Vaz A., Salgado A. & Brites D. | Intrathecal injection of secretive from anti-miRNA-124-TreatedALS motor neurons in MSOD1 mice shows promise as a therapeutic strategy | V Symposium of Portuguese Glial Network | November 30 | Coimbra, Portugal;
- 16) Barros M., Cunha S., Areias AC., Ludovico P. & Sampaio-Marques B. | Detection of Exosomes by conventional flow cytometry: protocol optimization | XVII Congress of the Iberian Society of Cytometry | June 14-18 | Online;
- 17) Botelho F., Miranda A., Braga I., Leão R., Teves F., Dias J., Rodrigues F., Oliveira J., Augusto I., Portela C., Febra J., Custódio S., Liu P., Gago P., Silva C. & Pacheco-Figueiredo L. | Comparação da Eficácia dos Fármacos para o Cancro da Próstata Metastizado Resistente à Castração na Vida Real com os Resultados dos Ensaios Clínicos | Prossyga Scientific Awards | October 15-16 | Oporto, Portugal;
- 18) Brito P., Valente C., Cardoso C., Silva LD., Pais N., Pereira R., Bastos R., Andrade R. & Espregueira-Mendes J. | Intra-Articular Injections of Hyaluronic Acid Are Superior to Platelet-Rich Plasma for The Treatment Of Knee Osteoarthritis | 13th Biennial ISAKOS Congress | November 27 – December 1 | Online;
- 19) Cabral J. | Brain Stimulation Strategies to Rebalance Functional Networks | 36^o Congress of the Portuguese Neurosurgery Society | September 9-11 | Oporto, Portugal;
- 20) Cabral J. | Mechanistic principles of Resting-State Networks and their modulation over time | OHBM - World meeting of the Organization for Human Brain Mapping | June 21-25 | Online;
- 21) Cabral J. | Patho-connectomics: how disrupted functional networks lead to psychiatric disorders | Festival of Neuroscience - British Neuroscience Association | April 12-15 | Online;
- 22) Cabral J. | Ressonância no cérebro revela princípios físicos da consciência | Desmascarar a Ciência, Physics Association of the University of Aveiro | April 7 | Online;

- 23) Caldeira I., Correia-Pinto J. & Moura RS. | Deciphering the role of vitamin D in early lung development | 16th Young European Scientists (YES) meeting | September 16-19 | Oporto, Portugal;
- 24) Caldeira I., Correia-Pinto J. & Moura RS. | Unraveling the impact of Vitamin D in chick lung branching morphogenesis. Virtual Keystone Symposia: Vitamin D workshop | October 13-14 | Online;
- 25) Campos J., Guerra-Gomes S., Serra SC., Baltazar G., Oliveira JF., Teixeira FG. & Salgado AJ. | Modulation of Astrocytic Cell populations by Human Bone Marrow Mesenchymal Stem Cell Secretome | Sociedade Portuguesa de Neurociências 2021 | December 1-3 | Coimbra, Portugal;
- 26) Campos J., Guerra-Gomes S., Serra SC., Baltazar G., Oliveira JF., Teixeira FG. & Salgado AJ. | In Vivo Modulation of Astrocytic Cell populations by Human Bone Marrow Mesenchymal Stem Cell Secretome | 6th World Congress TERMIS 2021 | November 15-19 | Maastricht, The Netherlands;
- 27) Canto-Gomes J., Silva C., Cerqueira J., Rb-Silva R., Gonzalez-Súarez I., Boleixa D., da Silva A., Correia-Neves M. & Nobrega C. | Profound alterations on peripheral blood cell populations are present on relapse-remitting multiple sclerosis patients at disease onset | Reunião da Sociedade Portuguesa de Imunologia | November 11 | Online;
- 28) Canto-Gomes J., Silva C., Cerqueira J., Rb-Silva R., Gonzalez-Súarez I., Boleixa D., da Silva A., Correia-Neves M. & Nobrega C. | Reduced memory T cells, less suppressive regulatory T cells and NK cells prone to be inhibited characterize Multiple Sclerosis at clinical onset| Symposium on Neuro-Immune Interactions - Conte Center for Neuroimmune Studies | March 24-25 | Online;
- 29) Canto-Gomes J., Silva C., Cerqueira J., Rb-Silva R., Gonzalez-Súarez I., Boleixa D., Martins A., Correia-Neves M. & Nobrega C. | Reduced memory T cells, less suppressive regulatory T cells and NK cells prone to be inhibited characterize Multiple Sclerosis at clinical onset | Higher

naïve to memory T cells and altered regulatory cells characterize Multiple Sclerosis at clinical onset | XVII Meeting of the Iberian Cytometry Society | June 14 | Online;

30) Canto-Gomes J., Silva C., Rb-Silva R., González-Suárez I., Boleixa D., da Silva A., Correia-Neves C., Cerqueira J. & Nobrega C. | Profound alterations on T cell subsets and on regulatory cells characterize Multiple Sclerosis at clinical onset | Annual Congress of the European Committee for Treatment and Research in Multiple Sclerosis -ECTRIMS | October 13-15 | Online;

31) Canto-Gomes J., Silva C., Rb-Silva R., González-Suárez I., Boleixa D., da Silva A., Correia-Neves C., Cerqueira J. & Nobrega C. | Lower numbers of blood central memory T cells and altered phenotype of regulatory cells are present in newly diagnosed relapsing-remitting Multiple Sclerosis patients | European Congress in Immunology | September 1-4 | Online;

32) Cardoso-Carneiro D., Cunha A., Fontão P., Pinheiro J., Freitas G., Nogueira R., Reis R. & Martinho O. | Compreender a regulação e sinalização da RKIP em cancro do colo do útero: RKIP/HER loop | 3º Encontro Nacional de Jovens Investigadores em Oncologia | September 24 | Oporto, Portugal;

33) Cardoso-Carneiro D., Cunha A., Nogueira R., Cunha A., Peters A., Carvalho A., Reis R. & Martinho O. | RKIP protein as a potential prognostic, aggressiveness and therapy response biomarker in HPV-related cancers | EACR 2021 Virtual Congress: Innovative Cancer Science | June 9-12 | Online;

34) Castro AC., Jacinto L. & Monteiro P. | HCN channelopathy as a key mechanism for auditory hypersensitivity in Shank3 mouse model for ASD | Portuguese Society for Neuroscience meeting (SPN) 2021 | December 1-3 | Coimbra, Portugal;

35) Cavaleiro H., Pischiutta F., Pascente R., Caruso E., Oliveira A., Salgado AJ. & Zanier ER. | Development of an ex vivo model of traumatic brain injury to evaluate the therapeutic efficacy of mesenchymal stromal cells derived secretoma | Sociedade Portuguesa de Neurociências | December 1-3 | Coimbra, Portugal;

- 36) Celeiro S., Baltazar F., Reis R. & Viana-Pereira M. | SPINT2 downregulation in Melanoma influences EMT. | EACR 2021 Virtual Congress: Innovative Cancer Science | June 9-12 | Online;
- 37) Cerqueira M., Belmonte-Reche E., Costa M., Baltazar F., Gallo J. & Bañobre-López M. | Validação de uma nova nanoformulação direcionada para o diagnóstico e tratamento do cancro da mama triplo-negativo | 3º Encontro nacional de Jovens Investigadores em Oncologia (ENJIO) | September 4 | Oporto, Portugal;
- 38) Cerqueira M., Belmonte-Reche E., Costa M., Baltazar F., Gallo J. & Bañobre-López M. | In vitro validation of a new magnetic solid lipid nanoformulation against Triple-Negative Breast Cancer | II ASPIC-ASEICA International Meeting – Current Trends in Precision Medicine in Cancer | October 14-15 | Online;
- 39) Cerqueira M., Belmonte-Reche E., Costa M., Baltazar F., Gallo J. & Bañobre-López M. | In vitro validation of a new magnetic formulation against Triple-negative breast cancer | EuroNanoForum 2021 | May 5-6 | Braga, Portugal;
- 40) Cerqueira M., Belmonte-Reche E., Costa M., Baltazar F., Gallo J. & Bañobre-López M. | In vitro validation of new theranostic nanoformulation against Triple-negative breast cancer | 27th Porto Cancer Meeting | May 20-21 | Online;
- 41) Cerqueira M., Belmonte-Reche E., Costa M., Baltazar F., Gallo J. & Bañobre-López M. | Validation of a new nanoformulation for the diagnostic and treatment of triple-negative breast cancer | 3rd National Meeting for Young Researchers in Oncology (ENJIO) | September 24 | Oporto, Portugal;
- 42) Cerqueira M., Belmonte-Reche E., Costa M., Baltazar F., Gallo J. & Bañobre-López M. | In vitro validation of a new theranostic nanoformulation against Triple-Negative Breast Cancer | 27th Porto Cancer Meeting | May 20-21 | Online;
- 43) Correia J., Monteiro-Fernandes D., Guerreiro S., Lomba B., Cunha-Garcia D., Gomes P., Viana J., Duarte-Silva S. & Maciel P. | Do MJD mice present a cerebellar cognitive affective syndrome? | XVII Meeting of the Portuguese Society for Neurosciences (SPN) 2021 | Coimbra, Portugal;

- 44) Correia JS., Neves-Carvalho A., Mendes-Pinheiro B., Pires J., Duarte-Silva S., Monteiro S., Teixeira FG., Lopes F., Lima R., Silva NA., Teixeira-Castro A., Salgado AJ. & Maciel P. | Testing the Therapeutic Potential of Mesenchymal Stem Cells and Their Secretome in an Animal Model of Spinocerebellar Ataxia Type 3 | 8th Ataxia Investigators Meeting (AIM) | May 24-27 | Online;
- 45) Costa B. | New prognostic biomarkers in glioblastoma. EATRIS - Success stories on biomarkers: from bench to the clinical practice. Barriers, tips and tricks | EATRIS Spain + Portugal | November 30 | Online;
- 46) Costa B. | Novas estratégias de combate aos tumores cerebrais | Pint Of Science Portugal | May 19 | Online;
- 47) Costa B. | Reguladores Moleculares e Celulares de Glioblastoma | XII Congresso Nacional da Associação Portuguesa de Neuro-Oncologia | October 14 | Online;
- 48) Costa M., Baptista V., Graça M., Veiga MI. & Catarino S. | Effect of the Materials Properties in the Design of High Transmittance and Low FWHM SiO₂/TiO₂ Thin Film Optical Filters for Integration in a Malaria Diagnostics Device | BIOSTEC 2021: 14th International Joint Conference on Biomedical Engineering Systems and Technologies | February 11-13 | Vienna, Austria;
- 49) Costa M., Pontes O., Oliveira-Pinto S., Gonçalves C., Duarte-Silva S., Sampaio-Marques B., Bessa C., Ludovico P., Costa B., Maciel P., Proença F. & Baltazar F. | A new lead compound for triple negative breast cancer | EACR 2021 Virtual Congress: Innovative Cancer Science | June 9-12 | Online;
- 50) Costa M., Pontes O., Oliveira-Pinto S., Gonçalves C., Duarte-Silva S., Sampaio-Marques B., Bessa C., Ludovico P., Costa B., Maciel P., Proença F. & Baltazar F. | A new lead compound for triple negative breast cancer therapy | XXVI EFMC International Symposium on Medicinal Chemistry | August 19 - September 2 | Online;
- 51) Costa MD., Vilasboas-Campos D., Fernandes JH., Vieira C. Teixeira-Castro A. & Maciel P. | Genetic modifiers of spinocerebellar ataxia 3/ Machado-Joseph disease (SCA3/MJD): the role

of anti-aging genetic mutations | Ataxia Investigators Meeting 2021 (AIM2021) | May 10-13 | Online;

52) Costa MD., Vilasboas-Campos D., Fernandes JH., Vieira C., Teixeira-Castro A. & Maciel P. | Genetic modifiers of spinocerebellar ataxia 3/ Machado-Joseph disease (SCA3/MJD): the role of anti-aging genetic mutations | 23rd International C. elegans conference | June 21-24 | Online;

53) Costa P., Nogueira AR. & Gama J. | Modelling voting behaviour during a general election campaign using dynamic Bayesian networks | 20th EPIA Conference on Artificial Intelligence | September 7-9 | Online;

54) Costa S., Biscaia J., Horta M., Romano S., Guerreiro J., Heudtlass P., Cary M., Romão M., Rodrigues A., Miranda A., Martins A., Bento A., Pereira J., Mateus C. & Helling D. | Design, Challenges, and Effectiveness of the First Collaborative Care Intervention in Hypertension and Hyperlipidemia Management between Pharmacies and Primary Care in Portugal: A Multicenter Quasi-Experimental Controlled Trial (USFARMÁCIA) | 17ª Conferência Nacional Economia da Saúde | October 20-22 | Lisbon, Portugal;

55) Costa T., Neves N., Aguilar H. & Fraga, AG | Development of bioactive based materials with antimicrobial compounds incorporated in polymeric surfaces | Microbiotec'21 | November 23-26 | Lisbon, Portugal;

56) Costa T., Neves N., Aguilar H. & Fraga, AG. | Development of antimicrobial polymeric surfaces | 3rd Coatings and Interfaces Conference | 24–26 November 2021 | Online;

57) Costeira MJ., Reis R., Vilarinho L. & Palha J. | Rastreo neonatal do hipotiroidismo congénito – como podemos (ainda) melhorar? | 49th Portuguese Meeting of Neonatology | April 8-9 | Figueira da Foz, Portugal;

58) Cruz-Moreira D., Gomes C., Queirós S., Guy A., Markaki A. & Pirraco R. | Laser-based subtractive manufacturing for tissue engineering | Final FoReCaST Conference | October 27-29 | Oporto, Portugal;

- 59) Cunha A., Pinheiro J., Cardoso-Carneiro D., Fontão P., Freitas M., Reis R. & Martinho O. | RKIP protein as a novel predictor of EGFR targeted therapies in lung cancer | EACR 2021 Virtual Congress: Innovative Cancer Science | June 9-12 | Online;
- 60) Cunha A., Pinheiro J., Cardoso-Carneiro D., Fontão P., Freitas M., Reis R. & Martinho O. | A proteína RKIP como um novo preditor de resposta a terapias anti-EGFR em cancro do pulmão | 3º Encontro Nacional de Jovens Investigadores em Oncologia | September 24 | Porto, Portugal;
- 61) Cunha A., Pinheiro J., Cardoso-Carneiro D., Fontão P., Freitas M., Reis R. & Martinho O. | Untangling the role of RKIP in NSCLC aggressiveness – an in vitro/vivo and in silico analysis | II ASPIC-ASEICA International Meeting –Current Trends in Precision Medicine in Cancer | October 14-15 | Online;
- 62) de Sousa N., Pinho A., Monteiro S., Liberato V., Santos D. & Salgado A. | Acute administration of Baclofen after spinal cord injury improves locomotor behavior, bladder control and modulates the inflammatory response | XVII Meeting of the Portuguese Society for Neuroscience | December 1-3 | Coimbra, Portugal;
- 63) Díez AM., Cabrera-Serrano AJ., Sánchez-Maldonado JM., Campa D., García P., ter Horst R., Niazi Y., Landi S., Cañadas-Garre M., Hernández-Mohedo F., González-Sierra PA., Clavero E., Bernal M., Moratalla L., López-Fernández E., Romero A., López-Nevot MA., Potenza L., Butrym A., Chen T., Sampaio-Marques B., Gámez I., Rodríguez-Sevilla JJ., Marcos-Gragera R., Benavente Y., Spinet-Solá B., Llorca J., Ludovico P., Moreno V., Casabonne D., Jerez A., Hemminki K., Li Y., Luppi M., Alcoceba M., San José S., Netea MG., Canzian F., Försti A., Jurado M. & Sainz J. | Autophagy-related genetic variants influence the risk of developing chronic Lymphocytic Leukemia: a study in the context of the crucial Consortium | European Hematological Association | June 9-17 | Online;
- 64) Dominguez J., Martins TG., Peixoto MJ., Trigo G., Castro A., Saraiva M., Pedrosa J. & Fraga AG. | The role of Toll Like Receptors on the innate immune response against Mycobacterium ulcerans infection | Microbiotec'21 | November 23-26 | Lisbon, Portugal;

- 65) Dominguez J., Pacheco AR., Peixoto MJ., Mendes A., Fraga AG. & Pedrosa J. | Repurposing of new drug candidates for Buruli ulcer treatment | Microbiotec'21 | November 23-26 | Lisbon, Portugal;
- 66) D'Orsi E., Quialheiro A., Xavier AJ., Rech CR., Figueiró TH., Marques LP. & Paiva KM. | Uso de Internet reduz a incidência de declínio cognitivo: Estudo EpiFloripa idoso | Congresso Brasileiro de Epidemiologia, 2021 | November 22-26 | Online;
- 67) Duarte-Silva S., Da Silva JD., Neves-Carvalho A., Raposo M., Soares-Cunha C., Correia JS., Nogueira-Gonçalves G., Oliveira S., Costa L., Monteiro-Fernandes D., Rodrigues CM., Lima M., Teixeira-Castro A. & Maciel P. | Glucocorticoid receptor dysfunction as a SCA3/MJD biomarker and target for bile acid therapy | 8th Ataxia Investigators Meeting (AIM) | May 24-27 | Online;
- 68) Duarte-Silva S., Santos A., Monteiro-Fernandes D., Maciel P. & Castelhana-Carlos M. | Digital Ventilated Cages (DVC) as a tool for the study of Machado-Joseph Disease: Influence of physical exercise on established motor dysfunction in transgenic MJD mice | Sociedade Portuguesa de Neurociências | December 1-3 | Coimbra, Portugal;
- 69) Falcão A. | Oligodendrocyte heterogeneity in health and disease | Simpósio anual da rede glial portuguesa | November 30 | Online;
- 70) Falcão A. | Single-cell OMICS in oligodendroglia: opening doors to understand Multiple Sclerosis | Bioinformatic Open Days | May 7 | Online;
- 71) Falcão A. | Single-cell OMICS in oligodendroglia: opening doors to understand Multiple Sclerosis | ILC seminars | November 10 | Online;
- 72) Falcão A. | Single-cell OMICS in oligodendroglia: opening doors to understand Multiple Sclerosis | Biotechnology & Food Engineering Technion Seminars | February 10 | Online;
- 73) Falcão A. | The CSF shuttle: from the choroid plexus to the myelin and back! | III simpósio em Biologia Aplicada | October 7 | Online;

- 74) Falcão M., Monteiro P. & Jacinto L. | Somatosensory processing in a mouse model of ASD. Portuguese Society for Neuroscience meeting (SPN) 2021 | December 1-3 | Coimbra, Portugal;
- 75) Fernandes A., Costa L., Almeida B. & Maciel P. | Development of a cellular ATXN3 protein-protein interaction (PPI) assay for high-throughput screening of PPI modifiers | XVII Meeting of the Portuguese Society for Neurosciences (SPN) 2021 | November 9 | Coimbra, Portugal;
- 76) Fernandes R., Barbosa-Matos C., Borges-Pereira C. & Costa S. | Glycogen synthase kinase-3 inhibition by CHIR99021 promotes alveolar epithelial cell proliferation and lung regeneration in acute lung injury | 19th ERS Lung Science Conference | March 11-12 | Estoril, Portugal;
- 77) Fernandes, J., Costa M., Wang Q., Dias A. & Maciel P. | Neuroprotective effects of Hemerocallis citrina extracts in Caenorhabditis elegans models of neurodegenerative diseases | International Conference On Medicinal and Food Plant Research & 3rd Sino-Cplp Symposium On Natural Products And Biodiversity Resources 2021 | April 9-10 | Online;
- 78) Fernandes-Silva H., Alves MG., Correia-Pinto J., Oliveira PF., Homem CCF. & Moura RS. | Retinoic acid signaling regulates the metabolic component of embryonic lung branching morphogenesis | Virtual Young Embryologist Network (YEN) | March 4 | Online;
- 79) Fernandes-Silva H., Alves MG., Correia-Pinto J., Oliveira PF., Homem CCF. & Moura RS. | Retinoic acid signaling mediates the metabolic regulation of pulmonary branching morphogenesis | Virtual Keystone Symposia: Metabolic Decisions in Development and Disease | March 24-25 | Online;
- 80) Ferreira B., Gomez M., Dourado S., Martins C., Sampaio-Marques B. & Ludovico P. | The effect of alternative sugars in the yeast Saccharomyces cerevisiae fitness | Microbiotec'21 | November 23-26 | Lisbon, Portugal;
- 81) Ferreira D., Costa M., Baltazar F., Kalluri R., Moreira J. & Rodrigues L. | Engineered exosome-mediated delivery of RNAi therapeutics towards triple negative breast cancer therapy | EACR 2021 Virtual Congress: Innovative Cancer Science | June 9-12 | Online;

- 82) Ferreira J., Carneiro A., Miranda C., Vila I., Silva C., Cunha C., Mesquita A., Longatto-Filho A Cotter J., Mansilha A., Correia-Neves M. & Cunha P. | Inflammation and loss of skeletal muscle in chronic limb threatening ischemia | XXVI Congresso Brasileiro de Hepatologia | October 6 – 9 | Online;
- 83) Ferreira S., Carvalho V., Bertão A., Rodrigues F., Almeida-Aguiar C., Baltazar F. & Neves I. | Metal ion-zeolite nanomaterials for chemodynamic antibacterial and anticancer therapy | XXVII Encontro Nacional da Sociedade Portuguesa de Química | July 14-16 | Braga, Portugal;
- 84) Fonseca M., Sediya M., Figueira G., Vilasboas-Campos, D., Bessa C., Maciel P. & Dias A. | Neuroprotective and antioxidant effects of Maranta arundinacea and Porophyllum ruderale extracts in Caenorhabditis elegans | Online Internacional Phytotherapy Conference, INTERPHYTO 2021 | March 9-13 | Online;
- 85) Fonseca-Rodrigues D., Amorim D., Almeida A. & Pinto-Ribeiro F. | Emotional and cognitive impairments in the peripheral nerve chronic constriction injury model (CCI) of neuropathic pain: A systematic review | IASP 2021 Virtual World Congress on Pain | June 9-11 | Online;
- 86) Fonseca-Rodrigues D., Rodrigues A., Martins T., Pinto J., Amorim D., Almeida A. & Pinto-Ribeiro F. | A systematic review and meta-analysis on the correlation between pain severity and anxiety/depression levels in osteoarthritis patients | IASP 2021 Virtual World Congress on Pain | June 9-11 | Online;
- 87) Fontão P., Cunha A., Cardoso-Carneiro D., Pinheiro J., Freitas M., Mendes A., Martinho O. & Reis R. | Embryonic T-box transcription factor Brachyury as a predictive biomarker and therapeutic target in lung cancer | 27th Porto Cancer Meeting | May 20-21 | Online;
- 88) Fontão P., Cunha A., Cardoso-Carneiro D., Pinheiro J., Freitas M., Mendes A., Reis R. & Martinho O. | Fator de transcrição embrionário T-box Brachyury como biomarcador de resposta e alvo terapêutico em cancro do pulmão | 3º Encontro Nacional de Jovens Investigadores em Oncologia | September 24 | Oporto, Portugal;

- 89) Fontão P., Cunha A., Cardoso-Carneiro D., Pinheiro J., Freitas M., Mendes A., Reis R. & Martinho O. | Exploring the predictive and therapeutic value of the embryonic T-box transcription factor Brachyury in lung cancer | II ASPIC-ASEICA International Meeting – Current Trends in Precision Medicine in Cancer | October 14-15 | Online;
- 90) Freitas AS., Costa M., Pontes O., Seidel V., Proença F., Cardoso S., Baltazar F., Oliveira R. & Almeida-Aguiar C. | Anti-cancer activity of Portuguese propolis fractions and isolated compounds | 27th Porto Cancer Meeting | May 20-21 | Online;
- 91) Gomes C., Cruz-Moreira D., Queirós S. & Pirraco R. | Development of laser ablation-compliant hydrogels for tissue engineering | Final FoReCaST Conference | October 27-29 | Oporto, Portugal;
- 92) Gomes S., Baltazar F., Silva E. & Preto A. | Effect of diet microbiota-derived short chain fatty acids in colorectal cancer cells | 11th Probiotics, prebiotics and new foods 2021 | 12-14 September | Rome, Italy;
- 93) Gonçalves J., Fonseca-Rodrigues D., Laranjeira I., Almeida A. & Pinto-Ribeiro F. | Time-dependent characterization of sex-differences on the chronic constriction injury (CCI) model of neuropathic pain. IASP 2021 Virtual World Congress on Pain | June 9-11 | Online;
- 94) Gouveia M., Borges M., Costa J., Lourenço F., Fiorentino F., Rodrigues A., Teixeira I., Guerreiro J., Caetano P. & Carneiro A. | Measuring the value of solidarity based on health needs: the impact of a financial assistance program (ABEM) | 17ª Conferência Nacional Economia da Saúde | October 20-22 | Lisbon, Portugal;
- 95) Granja S., Longatto-Filho A., Campos P., Oliveira C., Stefan J., Martins-Filho S., Chagas A., Herman P., D'Albuquerque L., Alvares-da-Silva M., Carrilho F., Baltazar F. & Alves V. | Marcadores de pior prognóstico no carcinoma hepatocelular secundário a esteato-hepatite não alcoólica | XXVI Congresso Brasileiro de Hepatologia | October 6 – 9 | Online;
- 96) Guerreiro S., Ferreira-Lomba B., Duarte-Silva S., Cunha-Garcia, D.; Teixeira-Castro, A., Kleven M. S., Vidinha-Mira A., Vilasboas-Campos D., Newman-Tancredi A. & Maciel, P. | NLX-112

improved the motor coordination and balance in a Mouse Experimental Model of Machado-Joseph Disease | XVII Meeting of the Portuguese Society for Neuroscience | December 1-3 | Coimbra, Portugal;

97) Horta A., Tavares A., Mendez J. et al. | Sete anos de tratamento de hepatite C Crónica num serviço de Doenças Infeciosas | 17º ENAI | November 24-26 | Oporto, Portugal;

98) Lameira I., Martins C., Sampaio-Marques B., Ludovico P., Areias AC. | Flow cytometry as a tool to characterize an engineered 3D in vitro model of Acute Myeloid Leukemia | XVII Congress of the Iberian Society of Cytometry | June 14-18 | Oporto, Portugal;

99) Laranjeira IM., Vilasboas-Campos D., Teixeira-Castro A., Almeida A., Maciel P., Pinto-Ribeiro F. & Dias ACP. | *Pterospartum tridentatum*: Phytochemical profile and antioxidant activity of methanolic extracts | International Conference on Medicinal and Food Plant Research & 3RD Sino-CPLP Symposium on Natural Products and Biodiversity Resources | April 09-10 | Braga, Portugal;

100) Manso M., Pina-Vaz T., Pacheco-Figueiredo L., Antunes-Lopes T., Oliveira G., Cruz F., Dinis-Oliveira P. & Silva J. | Kidney transplantation from Donation after Cardiocirculatory Death (DCD) after Extracorporeal Membrane Oxygenation (ECMO)-What can we say after 5 years of experience? | 36th Annual EAU Congress 2021 | July 9-12 | Online;

101) Manso M., Ramos P., Botelho F., Santos-Silva A., Bulhões C., Cruz C. & Pacheco-Figueiredo L. | The impact of female urinary incontinence on mental health disease - a population-based study | 36th Annual EAU Congress 2021 | July 9-12 | Online;

102) Manso M., Ramos P., Botelho F., Santos-Silva A., Bulhões C., Cruz C. & Pacheco-Figueiredo L. | Prevalence of urinary incontinence in portuguese women, associated comorbidities and use of healthcare resources - a population-based study | 36th Annual EAU Congress 2021 | July 9-12 | Online;

- 103) Marinha L., Ribeiro R., Miranda A., Meira T., Pinto V. & Oliveira TG. | Phospholipase D2 ablation leads to deficits in social memory | Congresso SPNeurociencias | December 1-3 | Coimbra, Portugal;
- 104) Marques A., Quintela J., Teixeira J., Moreira C., Chacim S., Domingues N., Oliveira I., Moreira I., Martins A., Viterbo L., Pereira D., Santo A., Duarte H. & Mariz M. | Envolvimento da Medula Óssea por Linfoma Não-Hodgkin Difuso de Grandes Células B Determinado por PET e Biópsia Cega de Medula Óssea | Annual meeting of the Portuguese Society of Hematology | November 11-13 | Espinho, Portugal;
- 105) Marques AM., Pereira A., Barbosa MJ., Pacheco-Figueiredo L. & Bulhões C. | Chronic Obstructive Pulmonary Disease and Mental Health in men – a population-based study | 26th WONCA Europe Conference | July 6-10 | Online;
- 106) Marques AM., Silva A., Pereira A., Mendonça L. & Bulhões C. | Mielite pós-infecciosa por COVID-19: relato de caso | 38º Encontro Nacional de MGF | September 29 – October 2 | Braga, Portugal;
- 107) Meira T. | Neural correlates of (social) memory function in multiple sclerosis | Coimbra Institute for Biomedical Imaging and Translational Research (CIBIT) | January 28 | Coimbra, Portugal;
- 108) Meira T. | The role of hippocampal CA2 area in social memory (dys)function | Post-graduation in Physiology and Pharmacology of the Department of Physiology and Biophysics of the Federal University of Minas Gerais | January 21 | Belo Horizonte, Brasil;
- 109) Meira T., Coelho A., Onat S., Ruano L. & Cerqueira J. | One year regional brain volume changes as predictors of cognitive function in multiple sclerosis | Congresso SPNeurociencias | December 1-3 | Coimbra, Portugal;
- 110) Meira T., Donegan M. Siegelbaum S. | Specific TREK-1 channel blocker rescues social memory deficits in a mouse model of the 22q11.2 deletion syndrome | Congresso SPNeurologia | October 27-30 | Albufeira, Portugal;

- 111) Meira T., Marques L., Freitas E., Oliveira T., Maré R. & Alves J. | A novel variant of the abcc6 gene associated with small vessel disease | Congresso ESOC 2021 | September 1-3 | Online;
- 112) Mendes A., Fraga AG., Peixoto MJ., Marques A. & Pedrosa J | Targeting diabetic foot infection through a novel biomaterial-based topical therapeutic approach | Microbiotec'21 | November 23-26 | Lisbon, Portugal;
- 113) Mendes-Pinheiro B., Marote A., Soares-Cunha C., Barata-Antunes S., Campos J., Cibrão Ribeiro J., Monteiro-Fernandes D., Loureiro-Campos E., Serra SC., Santos D., Nickels S., Mozel A., Boussaad I., Krueger R., Schwamborn JC., Pinto L. & Salgado AJ. | Exploring the effects of mesenchymal stem cell secretome in Parkinson's disease regenerative medicine | Sociedade Portuguesa de Neurociências 2021 | December 1-3 | Coimbra, Portugal;
- 114) Mendonça L., Marques AM., Pereira A. & Bulhões C. | EXpiRA+ - Programa de Reabilitação Respiratória em doentes com DPOC - Projeto piloto da UCC de Vila Verde e USF Vida+ | 26th WONCA Europe Conference | July 6-10 | Online;
- 115) Mendonça L., Marques AM., Pereira A., Fraga M. & Bulhões C. | Diagnóstico de artrite reumatóide durante a pandemia COVID-19 | III Jornadas Multidisciplinares de Medicina Geral e Familiar | September 23-25 | Oporto, Portugal;
- 116) Monteiro-Fernandes D., Guerreiro S., Gomes P., Domingues A., Soares-Cunha C., Coimbra B., Santos A., Newman-Tancredi A., Kleven M., Rodrigues J., Duarte-Silva S. & Maciel P. | Integration of behavior and neuronal physiology in a mouse model of Rett Syndrome: a focus on serotonergic system modulation | XVII Meeting of the Portuguese Society for Neurosciences (SPN) 2021 | December 1-3 | Coimbra, Portugal;
- 117) Montenegro B., Dinis J. & Lamas N. | Prognostic factors of the rare Papillary Tumor of the Pineal Region: a systematic review and analysis | 33rd Congress of the European Society of Pathology | August 29-31 | Online;

- 118) Murteira R., Guerreiro J., Cary M. & Rodrigues A. | The Phollow cohort: real-world therapeutic adherence to oral anticoagulants in Portugal | 17ª Conferência Nacional Economia da Saúde | October 20-22 | Lisbon, Portugal;
- 119) Murteira R., Romano S., Teixeira I., Galante H., Bulhosa C., Sousa S. & Rodrigues A. | Impact of Transferring the Dispensing of Hospital-Only Medicines to Community Pharmacies during COVID-19 Pandemic: A Single-Arm, Before-and-After Study | ISPOR Europe 2021 | November 30 – December 3 | Online;
- 120) Neves S., Carujo A., Horta A. & Vasconcelos O. | Cryptococcoma and meningoencephalitis by *Cryptococcus gattii* – an uncommon diagnosis in a non- endemic country | 31st ECCMID | July 9-12 | Online;
- 121) Neves S., Silva C., Gonçalves I., Horta A. et al. | Osteomielite Tuberculosa do Esterno – Uma entidade a recordar | 17º ENAI | November 24-26 | Oporto, Portugal;
- 122) Neves S., Videira F., Cruz H., Gonçalves I., Silva C., Horta A. et al. | Infecção Gonocócica Disseminada – um Diagnóstico Frequentemente Esquecido | 17º ENAI | November 24-26 | Oporto, Portugal;
- 123) Nogueira R., Cardoso P., Rocha D., Pinheiro P., Matos J., Oliveira A., Martins M., Teles T., Baptista P. & Sousa C. | Co-occurrence of Placental Phenotypes and Polymerase Chain Reaction-proven Placental and Fetal(Neonatal) Coronavirus 2 (SARS-CoV-2) Infection: a case series Symposium - Covid experience | PPS, Annual Meeting 221 | September 30| Belgrade, Serbia;
- 124) Nogueira R., Sousa A. & Carmo O. | Fetal cystic tumor of the Atrioventricular Node: A case of Fetal Death at 12 weeks of Gestational-Age. Update in Paediatric Tumors | PPS, Annual Meeting | September 30| Belgrade, Serbia;
- 125) Nunes J., Andrade R., Azevedo C., Ferreira NV., Oliveira N., França G., Calvo E., Espregueira-Mendes J. & Sevivas N. | Conventional all-cemented glenoid implants in total shoulder arthroplasty remains a more reliable option over modern designs. A systematic review with

meta-analysis | Congresso da Sociedade Portuguesa de Ombro e Cotovelo | November 19-20
| Tomar, Portugal;

126) Nunes J., Andrade R., França G., Espregueira-Mendes J. & Sevivas N. | Glenosphere lateralization in reverse shoulder arthroplasty leads to better functional and clinical outcomes in rotator cuff arthropaty patients - a systematic review with meta-analysis | 13th Biennial ISAKOS Congress | November 27 – December 1 | Online;

127) Oliveira S., Duarte-Silva S., Da Silva J., Cunha-Garcia D., Esteves S., Riess O., Hübener-Schmid J., Maciel P. & Teixeira-Castro A. | Towards the molecular determinants of serotonergic signaling-mediated suppression of SCA3 pathogenesis | 8th Ataxia Investigators Meeting (AIM) 2021 | May 24-27 | Online;

128) Oliveira TG. | Primary age-related tauopathy (PART) and Alzheimer’s disease show differential magnetic resonance imaging atrophy patterns | 3rd Eurotau Meeting | October 25-26 | Lille, France;

129) Oliveira-Pinto S., Pontes O., Lopes D., Sampaio-Marques B., Costa M., Carvalho L., Gonçalves C., Costa B., Maciel P., Ludovico P., Baltazar F., Proença F. & Costa M. | Characterization of the activity of novel chromene derivatives for cancer therapy | II Symposium on Biochemistry | January 29 | Braga, Portugal;

130) Osório NS. | Subtipos do HIV-1 de maior prevalência em Portugal. | XXV Congreso Latinoamericano de Microbiología | August 25 - 28, 2021 | Asunción, Paraguay;

131) Pais N., Andrade R., Araújo J., Pedrosa D., Barbosa N., Ruano A. & Espregueira-Mendes J. | Rotura do ligamento cruzado anterior (LCA) em adolescentes raras vezes uma lesão isolada | 9º Congresso Nacional de Ortopedia Infantil | September 17 | Aveiro, Portugal;

132) Palha JA. | The choroid-plexus brain barrier: in and out of the brain in aging | Virtual Workshop on Biochemistry of Ageing, Portuguese Biochemical Society | March 30 | Online;

- 133) Passos R., Vieira C., Pires C., Queirós S. & Pereira V. | Characterization of myocardial deformation in all four cardiac chambers in patients with hypertrophic cardiomyopathy using feature tracking cardiac magnetic resonance imaging | Congresso Português de Cardiologia | April 30 - May 2 | Lisbon, Portugal;
- 134) Pereira A., Marques AM., Barbosa MJ., Pacheco-Figueiredo L. & Bulhões C. | Prevalence of COPD in Portuguese men, associated comorbidities and use of healthcare resources – a population-based study | 26th WONCA Europe Conference | July 6-10 | Online;
- 135) Pereira A., Souto B. & Osório NS | Mutações de resistência antirretroviral ao HIV no Brasil | XXV CONGRESO LATINOAMERICANO DE MICROBIOLOGÍA | August 25 - 28 | Asunción, Paraguay;
- 136) Pereira VH., Nogueira-Silva C., Sousa N. & Cerqueira JJ. | Introducing illness scripts to foster clinical reasoning in the new medical curriculum at University of Minho | 7º Congresso Nacional de Práticas Pedagógicas no Ensino Superior (CNaPPES.21) | July 12-16 | Online;
- 137) Pereira-Nunes A., Santos N., Costa S., Baltazar F. & Granja S. | CD147 in cancer immunosurveillance: new tool for T-cell based immunotherapy? | EACR 2021 Virtual Congress: Innovative Cancer Science | June 09-12 | Online;
- 138) Pereira-Vieira J., Celeiro S., Granja S., Barbosa-Matos C., Preto A., Queirós O., Ko Y., Casal M. & Baltazar F. | Targeting glycolytic metabolism as a therapeutic strategy for Acute Myeloid Leukemia | EACR 2021 Virtual Congress: Innovative Cancer Science | June 9-12 | Online;
- 139) Picó-Pérez M. | Can we consider functional magnetic resonance imaging guided neurofeedback as a third-generation therapy? | V Congreso Nacional de Psicología, July 11 | Online;
- 140) Picó-Pérez M., Fernandes A., Couto B., Ferreira S. & Morgado P. | Sociodemographic and lifestyle predictors of mental health adaptability during COVID-19 compulsory confinement: a longitudinal study | 34th European College of Neuropsychopharmacology (ECNP) Congress | October 2-5 | Lisbon, Portugal;

- 141) Picó-Pérez M., Fernández-Rodríguez M., Pereira de Barros M., Radua J. & Morgado P. | Multimodal Meta-Analysis of Structural Grey Matter, Executive Function and Emotional Processing fMRI Findings in Schizophrenia Patients | 2021 Society of Biological Psychiatry (SOBP) | April 29 – May 1 | Online;
- 142) Pinheiro J., Fontão P., Freitas M., Cardoso-Carneiro D., Cunha A., Granja S. & Martinho O. | Role of RKIP protein in the modulation of lung cancer cell metabolism. | II ASPIC-ASEICA International Meeting – Current Trends in Precision Medicine in Cancer | October 14-15 | Online;
- 143) Pinho AG., Salgado AJ., Monteiro S. & Silva N | Microglia specific behavior across central nervous system | V Symposium of the Portuguese Glial Network| November 30 | Coimbra, Portugal;
- 144) Pinho AG., Salgado AJ., Monteiro S. & Silva N. | Region-specific morphology and behavior of microglia | EMBO Workshop Microglia 2021 | October 28-29| Online;
- 145) Pinho TS., Silva D., Cibrão J., Marote A., Gomes E., Lima R., Batista S., Melo R., Ribeiro C., Cunha C., Moreira I., Lanceros-Mendez S. & Salgado AJ. | Neuronal differentiation on electroactive PVDF films dynamically stimulated | Sociedade Portuguesa de Neurociências 2021 | December 1-3 | Coimbra, Portugal;
- 146) Pinto L. | Adult neuro- and astrogliogenesis as key mechanisms underlying the pathophysiology of stress-induced depression | 34th ECNP Congress | October 2-5 | Lisbon, Portugal;
- 147) Pinto P., Pereira G. & Alves J. | Blood test predictors of functional outcome after mechanical thrombectomy treatment in acute ischemic stroke | Congresso SPNeurorradiologia | November 19-20 | Lisbon, Portugal;
- 148) Pires C., Passos R., Medeiros P., Oliveira C., Flores R., Mané F., Silva R., Campos I., Antunes N., Vieira C., Queirós S. & Pereira V. | Temporal characterization of ventricular function and

deformation after Takotsubo syndrome using cardiovascular magnetic resonance imaging | EuroCMR 2021 | May 06-08 | Online;

- 149) Pires C., Passos R., Medeiros P., Oliveira C., Flores R., Mané F., Silva R., Campos I., Antunes N., Vieira C., Queirós S. & Pereira V. | Temporal characterization of ventricular function and deformation after Takotsubo syndrome using cardiovascular magnetic resonance imaging | Congresso Português de Cardiologia | April 30 - May 2 | Online;
- 150) Pontes O., Oliveira-Pinto S., Sampaio-Marques B., da Silva L., Laus C., Ludovico P., Reis R., Proença F., Baltazar F. & Costa M. | Novel therapy for renal cell carcinoma: overcoming drug resistance. | EACR 2021 Virtual Congress: Innovative Cancer Science | June 9-12 | Online;
- 151) Pontes O., Oliveira-Pinto S., Sampaio-Marques B., Laus A., da Silva L., Ludovico P., Reis RM. & et al. | New chromene derivatives: overcoming renal cell carcinoma drug resistance | XXVI EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2021) | August 29 – September 2 | Online;
- 152) Queirós S. | Right ventricular segmentation in multi-view cardiac MRI using a unified U-net model | Multi-disease, multi-view & multi-center right ventricular segmentation in cardiac MRI (M&Ms-2) challenge, held in the 24th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI) | September 27 – October 1 2021 | Strasbourg, France;
- 153) Quintela J., Marques A., Teixeira J., Moreira C., Chacim S., Domingues N., Oliveira I., Moreira I., Martins A., Viterbo L., Santo A., Pereira D., Duarte H. & Mariz M. | Papel da 18F-FDG-PET Intermédia na Avaliação de Resposta em Doentes com Linfoma Difuso de Grandes Células B | Annual meeting of the Portuguese Society of Hematology | November 11-13 | Espinho, Portugal;
- 154) Sampaio-Marques B., Pereira HR., Paiva S. & Ludovico P. | Abrogation of endocytosis blocks the spread of alpha-synuclein in the yeast model of synucleinopathies | Microbiotec'21 | November 23-26 | Lisbon, Portugal;

- 155) Santos CF., Bastos R., Andrade R., Pereira R., Parente M., Espregueira-Mendes J. & Natal Jorge R. | Anterior cruciate ligament tear simulation using finite element method | 26th Congress of the European Society of Biomechanics | July 11-14 | Milan, Italy;
- 156) Santos P., Pinho R., Andrade G., França C., Valente J., Nunes J., Espregueira-Mendes J. & Pereira B. | Percutaneous Repair of The Acute Achilles Tendon Rupture Allows a Faster Return To Working Activities Compared to Open And Mini-Open Repair | 13th Biennial ISAKOS Congress | November 27 – December 1 | Online;
- 157) Sarabando R., Vilela-Gomes A., Reis I., Pacheco A. & Nogueira-Silva C. | Fatores associados à adesão à vacina contra o Vírus do Papiloma Humano nas mulheres em idade adulta | 22º Congresso da Federação das Sociedades Portuguesas de Obstetrícia e Ginecologia | November 8-9 | Oporto, Portugal;
- 158) Scuglia M., Frazão LP., Miranda A., Martins A., Barbosa-Sequeira J., Coimbra D., Longatto-Filho A., Reis RL., Nogueira-Silva C., Neves NM. & Correia-Pinto J. | Novel biodegradable membranes compared with goretex for the treatment of congenital diaphragmatic hernia: an experimental study | 22nd European Paediatric Surgeons' Association Annual Congress | September 1-4 | Athens, Greece;
- 159) Silva C., Sundling C., Folkesson E., Fröberg G., Nobrega C., Canto-Gomes J., Chambers B., Lakshmikanth T., Brodin P., Bruchfel J., Nigou J., Correia-Neves M. & Källenius G. | Stimulation with mycobacterial glycolipids and PPD reveals different innate immune response profiles in active and latent tuberculosis patients | XVII Meeting of the Iberian Cytometry Society | June 14 | Online;
- 160) Silva C., Sundling C., Folkesson E., Fröberg G., Nobrega C., Canto-Gomes J., Chambers B., Lakshmikanth T., Brodin P., Bruchfeld J., Nigou J., Correia-Neves M. & Källenius G. | Stimulation with mycobacterial glycolipids reveals different innate immune response profiles in active and latent Tuberculosis | European Congress in Immunology | September 1-4 | Online;

- 161) Silva C., Sundling C., Folkesson E., Fröberg G., Nobrega C., Canto-Gomes J., Chambers B., Lakshmikanth T., Brodin P., Bruchfeld J., Nigou J., Correia-Neves M. & Källenius G. | Stimulation with mycobacterial glycolipids reveals different innate immune response profiles in active and latent Tuberculosis | Meeting of the Scandinavian Society for Immunology | October 19-22 | Online;
- 162) Silva C., Sundling C., Folkesson E., Fröberg G., Nobrega C., Canto-Gomes J., Chambers B., Lakshmikanth T., Brodin P., Bruchfeld J., Nigou J., Correia-Neves M. & Källenius G. | Stimulation with mycobacterial glycolipids reveals different innate immune response profiles in active and latent Tuberculosis | Reunião da Sociedade Portuguesa de Imunologia | November 11 | Online;
- 163) Silva D., Atallah P., Schirmer L., Frra A., Pinho TS., Sousa R., Salgado AJ. & Werner C. | Development of a starPEG-heparin hydrogel system to promote controlled and sustained delivery of Adipose tissue derived stem cells' secretome for CNS regenerative medicine | 6th World Congress TERMIS 2021 | November 15-19 | Maastricht, Netherlands;
- 164) Silva D., Pinho T., Cibrão J., Lima R., Gomes E., Afonso J., Marques C., Atallah P., Schirmer L., Frra A., Sousa R., Werner C. & Salgado AJ. | Development of a StarPEG hydrogel system to promote controlled and sustained delivery of ASCs secretome to induce Spinal Cord Injury regeneration | Sociedade Portuguesa de Neurociências 2021 | December 1-3 | Coimbra, Portugal;
- 165) Silva JM., Gomes P., Dioli C., Samiotaki M., Ortiz AM., Sousa N., Mazuik BF., Wolozin B. & Sotiropoulos I. | The role of Tau in the regulation of translational stress response and its importance for brain pathology | Congresso SPNeurociencias | December 1-3 | Coimbra, Portugal;
- 166) Silva LD., Andrade R., Brink L., Valente C., Cardoso C., Pereira R., Bastos R. & Espregueira-Mendes J. | Clinical And Functional Outcomes of Isolated MPFL Reconstruction Versus Combined Reconstruction of the MPFL and MQTFL at 2-year Follow-Up: Preliminary Results | 13th Biennial ISAKOS Congress | November 27 – December 1 | Online;

- 167) Silva M., Calçada C., Osório N., Baptista V., Thathy V., Teixeira M., Reid A., Ferreira P., Fidock D. & Veiga M. | The Plasmodium falciparum protein PfMRP1 functions as an influx ABC transporter | World Microbe Forum, American Society for Microbiology (ASM), Federation of European Microbiological Societies (FEMS) | June 20-24 | Online;
- 168) Silva P., Santos CP., Monteiro P. & Jacinto L. | Compulsive behavior detection with computer vision and machine learning in an OCD mouse model | Portuguese Society for Neuroscience meeting (SPN) 2021 | December 1-3 | Coimbra, Portugal;
- 169) Silva RC., Araújo B., Campos J., Domingues HS., Salgado AJ. & Teixeira FG. | Combining Stem Cells Secretome and N-acetylcysteine to Parkinson's Disease Modeling and Repair | ENCODS 2021 | June 4-6 | Online;
- 170) Silva-Ribeiro T., Coelho E., Genisheva Z., Oliveira JM., Carvalho P., Correia-Pinto J., Sampaio P. & Moura RS. | Electronic vs. Conventional Cigarette: a comparative study of aerosol and smoke effect on the embryonic chick lung in vitro | Virtual Young Embryologist Network (YEN) | March 4 | Online;
- 171) Sotiropoulos I., Gomes P., Samiotaki M., Cunha C., Silva JM., Coimbra B., Waites CL., Gatsogiannis C., Sousa N., Kapogiannis D. & Costa-Silva B. | A novel method of spontaneously-released extracellular vesicles isolation from mouse and human brain | 3rd EuroTau meeting | October 25-26 | Lille, France;
- 172) Souto B., Pereira A. & Osório NS. | Aspectos epidemiológicos dos subtipos B e C do HIV-1 no Brasil | XXV Congreso Latinoamericano se Microbiología | August 25 - 28 | Asunción, Paraguay;
- 173) Tavares A., Horta A., Mendez J. et al. | Avaliação às 156 semanas de doentes com infeção crónica por VHC tratados por agentes de ação direta | 17^o ENAI | November 24-26 | Oporto, Portugal;
- 174) Teixeira A., Sousa-Silva M., Chícharo A., Oliveira A., Carneiro A., Piairo P., Sampaio-Marques B., Ludovico P., Abalde-Cela S. & Diéguez L. | Isolation of Acute Myeloid Leukemia Blasts using

a Microfluidic System for accurate assessment of Minimal Residual Disease | EuroNanoForum 2021 | May 5-6 | Online;

- 175) Teixeira I., Galante H., Romão M., Rodrigues A., Figueira I., Conceição MI., Ferreira AP. & Dias S. | Impact of Community Pharmacies on Access to Point-of-Care Tests for HIV and Hepatitis C and B Infections: An Observational, Cross-Sectional Study | ISPOR Europe 2021 | November 30 – December 3 | Online;
- 176) Teixeira I., Mansinho J., Rodrigues A., Martins H. & Guerreiro J. | Effects of the Policy Regulation on Generic Competition and Pharmaceutical Savings in Portugal. Do Incentives Matter? | ISPOR Europe 2021 | November 30 – December 3 | Online;
- 177) Teixeira-Castro A., Ferreira-Lomba B., Pereira-Sousa J., Oliveira S. & Maciel P. | Suppression of proteotoxicity by serotonin signaling | 8th Ataxia Investigators Meeting (AIM) | May 24-27 | Online;
- 178) Teixeira-Castro A., Ferreira-Lomba B., Vilasboas-Campos D., Pereira-Sousa J., Oliveira S. & Maciel P. | Suppression of proteotoxic stress by serotonergic signaling | XVII Meeting of the Portuguese Society for Neuroscience | December 1-3 | Coimbra, Portugal;
- 179) Teixeira-Rodrigues A., Romano S., Romão M., Bulhosa C., Figueira D. & Alves J. | Effectiveness of a pharmacist-led inhalation technique intervention on asthma and COPD patients: The INspira cluster-randomized controlled trial | European Respiratory Journal 58 (suppl 65) | November | Virtual
- 180) Veiga MI. | Malaria elimination: current therapeutic and diagnosis challenges. Xvi congreso internacional de investigación científica | Ministerio de Educación Superior, Ciencia y Tecnología | 10 June 2021 | Online;
- 181) Vidinha-Mira A., Monteiro D., Guerreiro S., Almeida B., Duarte-Silva S. & Teixeira-Castro A. | Serotonergic Signalling Activation as a Therapeutic Approach for Neurodegenerative Diseases | IJUP'21 - 14º Encontro de Investigação Jovem da Universidade do Porto | May 5-7 | Online;

- 182) Vidinha-Mira A., Monteiro D., Guerreiro S., Cunha-Garcia D., Ferreira-Lomba B., Oliveira S., Silva J., Sotiropoulos I., Duarte-Silva S., Maciel P. & Teixeira-Castro A. | Can chronic activation of serotonergic signalling be a therapeutic approach for neurodegenerative diseases? | XVII Meeting of the Portuguese Society for Neuroscience | December 1-3 | Coimbra, Portugal;
- 183) Vidinha-Mira A., Monteiro D., Guerreiro S., Vieira C., Cunha-Garcia D., Ferreira-Lomba B., Oliveira S., Soares-Cunha C., Sotiropoulos I., Silva J., Almeida B., Duarte-Silva S., Maciel P. & Teixeira-Castro A. | Does activation of serotonergic treatment suppress proteotoxicity in mouse models of neurodegenerative diseases? | 16th Young European Scientist (YES) Meeting | September 16-19 | Oporto, Portugal;
- 184) Vieira C., Jalles A., Pereira-Sousa J., Vilasboas-Campos D., Mota A., Vasconcelos S., Ferreira-Lomba B., Costa M., Da Silva J., Maciel P. & Teixeira-Castro A. | Aripiprazole Offsets Mutant ATXN3-Induced Motor Dysfunction by Targeting Dopamine D2 and Serotonin 1A and 2A Receptors in *C. elegans* | XVII Meeting of the Portuguese Society for Neurosciences (SPN) 2021 | December 1-3 | Coimbra, Portugal;
- 185) Vilasboas-Campos D., Lopes J., Da Silva JD., Costa MD., Maciel P. & Teixeira-Castro A. | Development of a high-throughput phenotypic assay to screen for chemical enhancers of proteostasis activity in *Caenorhabditis elegans* | XVII Meeting of the Portuguese Society for Neuroscience | December 1-3 | Coimbra, Portugal.

Publications in scientific journals (Original full papers, reviews, Proceedings; Letters...)

- 1) Abrahao-Machado, L. F., Pinto, F., Antunes, B., Volc, S., Boldrini, E., Camargo, O. P. D., & Reis, R. M. (2021). Clinical impact of brachyury expression in ewing sarcoma patients. *Advances in Medical Sciences*, 66 (2), 321-325. doi:10.1016/j.advms.2021.06.002;

- 2) Afonso, J. P. L., Pereira, A., Pereira, J. C., & Martins, S. F. (2021). Prognostic Value of Inflammation-based Prognostic Scores in Patients with Colorectal Cancer. *Journal of Coloproctology*, 41 (4), 393-405. doi:10.1055/s-0041-1735458;
- 3) Alfonso, J. F., Torquetti, L., Fernández-Vega-Cueto, L., Allan, B., Poo-López, A., Alfonso-Bartolozzi, B., de la Cruz, J., Monteiro, T., & Madrid-Costa, D. (2021). Visual and tomographic outcomes of a 300° Arc-length ICRS implantation in moderate to advanced central keratoconus. *Journal of Refractive Surgery*, 37 (4), 249-255. doi:10.3928/1081597X-20210115-01;
- 4) Alves, A. L. V., Gomes, I. N. F., Carloni, A. C., Rosa, M. N., da Silva, L. S., Evangelista, A. F., Reis, R. M., & Silva, V. A. O. (2021). Role of glioblastoma stem cells in cancer therapeutic resistance: a perspective on antineoplastic agents from natural sources and chemical derivatives. *Stem Cell Research and Therapy*, 12 (1), 206. doi:10.1186/s13287-021-02231-x;
- 5) Amalric, M., Pattij, T., Sotiropoulos, I., Silva, J. M., Sousa, N., Ztaou, S., Chiamulera, C., Wahlberg, L. U., Emerich, D. F., & Paolone, G. (2021). Where dopaminergic and cholinergic systems interact: A gateway for tuning neurodegenerative disorders. *Frontiers in Behavioral Neuroscience*, 15, 661973. doi:10.3389/fnbeh.2021.661973;
- 6) Anacleto, S., Mota, P., Fernandes, V., Carvalho, N., Morais, N., Passos, P., Rodrigues, R., Cardoso, A., Tinoco, C., Dias, E., Lima, E., & Correia-Pinto, J. (2021). Can narration and guidance in video-enhanced learning improve performance on E-BLUS exercises? *Central European Journal of Urology*, 74 (1), 131-138. doi:10.5173/ceju.2021.0005;
- 7) Anderson, B. (2021). RGS Table of Contents November 2021. *Medical Education*, 55 (11), 1297-1298. doi:10.1111/medu.14657;
- 8) Andrade R., Pereira R., Leal A., Pereira B., Vilas Boas J. P., van Dijk N., Espregueira-Mendes J. (2021). Development of a medical device compatible with mri/ct to measure ankle joint laxity: the porto ankle testing device. *Porto Biomedical Journal*. 6(1):e122;

- 9) Antunes, C., Da Silva, J. D., Guerra-Gomes, S., Alves, N. D., Ferreira, F., Loureiro-Campos, E., Branco, M. R., Sousa, N., Reik, W., Pinto, L., & Marques, C. J. (2021). Reduced hippocampal ten-eleven translocation 3 (Tet3) protein expression in Tet3 conditional knockout mice. *Molecular Psychiatry*, 26 (5), 1425. doi:10.1038/s41380-021-01067-4;
- 10) Antunes, C., Da Silva, J. D., Guerra-Gomes, S., Alves, N. D., Ferreira, F., Loureiro-Campos, E., Branco, M. R., Sousa, N., Reik, W., Pinto, L., & Marques, C. J. (2021). Tet3 ablation in adult brain neurons increases anxiety-like behavior and regulates cognitive function in mice. *Molecular Psychiatry*, 26 (5), 1445-1457. doi:10.1038/s41380-020-0695-7;
- 11) Antunes, M., Quental, C., Folgado, J., de Campos Azevedo, C., & Ângelo, A. C. (2021). Shoulder positioning during superior capsular reconstruction: Computational analysis of graft integrity and shoulder stability. *Biology*, 10 (12). doi:10.3390/biology10121263;
- 12) Anyaeji, C. I., Cabral, J., & Silbersweig, D. (2021). On a quantitative approach to clinical neuroscience in psychiatry: Lessons from the kuramoto model. *Harvard Review of Psychiatry*, 29 (4), 318-326. doi:10.1097/HRP.0000000000000301;
- 13) Arastehfar, A., Carvalho, A., Houbraken, J., Lombardi, L., Garcia-Rubio, R., Jenks, J. D., Rivero-Menendez, O., Aljohani, R., Jacobsen, I. D., Berman, J., Osherov, N., & Hoenigl, M. (2021). *Aspergillus fumigatus* and aspergillosis: From basics to clinics. *Studies in Mycology*, 100, 100115. doi:10.1016/j.simyco.2021.100115;
- 14) Arastehfar, A., Kargar, M. L., Mohammadi, S. R., Roudbary, M., Ghods, N., Haghghi, L., Daneshnia, F., Tavakoli, M., Jafarzadeh, J., Hedayati, M. T., Wang, H., Fang, W., Carvalho, A., Ilkit, M., Perlin, D. S., & Lass-Flörl, C. (2021). A High Rate of Recurrent Vulvovaginal Candidiasis and Therapeutic Failure of Azole Derivatives Among Iranian Women. *Frontiers in Microbiology*, 12, 655069. doi:10.3389/fmicb.2021.655069;
- 15) Araújo, D., & Antunes, H. (2021). A novel mutation in the COL12A1 gene. *Gene*, 768, 145266. doi:10.1016/j.gene.2020.145266;

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National and International Collaborations

- 1) Adrian Newman-Tancredi | Neurolixis | Labruguière, France;
- 2) Alberto Dias | Universidade do Minho | Braga, Portugal;
- 3) Alfonso Araque | University of Minnesota | Minnesota, USA;
- 4) Ana Luísa Carvalho | Universidade de Coimbra | Coimbra, Portugal;
- 5) Andreas Bender | Yusuf Hamied Department of Chemistry, University of Cambridge | Cambridge, UK;

- 6) Antón Barreiro-Iglesias | USC | Santiago de Compostela, Spain;
- 7) Benjamin Wolozin | School of Medicine - Boston University | Boston, USA;
- 8) Boaz Barak | Tel Aviv University | Tel Aviv, Israel;
- 9) Bruno Sarmento | I3S | Oporto, Portugal;
- 10) Carmen Jerónimo | IPO-Porto | Oporto, Portugal;
- 11) Catarina Homem | CEDOC Universidade NOVA de Lisboa | Lisbon, Portugal;
- 12) Célia Maria de Almeida Soares | Universidade Federal de Goiás | Goiânia, Brazil;
- 13) Chinedu Anyaeji | Harvard Medical School | Boston, USA;
- 14) Christian Muller | Friedrich-Alexander University | Erlangen-Nürnberg, Germany;
- 15) Claudia Fançony | CISA - Centro de Investigação em Saúde em Angola | Caxito, Angola;
- 16) Cristina Rego | Universidade de Coimbra | Coimbra, Portugal;
- 17) Dan Ory | Casma Therapeutics | Cambridge, UK;
- 18) Daniel Fernandes Martins | Post graduate of Health Sciences | University of Southern of Santa Catarina | Palhoça, Brazil;
- 19) Daniela Schiller | Mount Sinai School of Medicine | New York, USA;
- 20) David Posada | CINBIO-Universidade de Vigo | Vigo, Spain;
- 21) Eleonora d'Orsi | Post Graduate in Public Health in Federal University of Santa Catarina | Florianópolis, Brazil;
- 22) Fernanda Proença | Universidade do Minho | Braga, Portugal;
- 23) Gal Bitan | UCLA | California, USA;

- 24) Georgios Lolas | Athens School of Medicine | Athens, Greece,
- 25) Gertrudis Perea | Cajal Institute | Madrid, Spain;
- 26) Gonçalo Castelo-Branco | Karolinska Institutet | Stockholm, Sweden;
- 27) Guoping Feng | MIT | Cambridge, USA;
- 28) Gustavo Goldman | Faculdade de Ciências Farmacêuticas de Ribeirão Preto, Universidade de São Paulo | São Paulo, Brazil;
- 29) Henrique Giraó | Faculdade de Medicina - Universidade de Coimbra | Coimbra, Portugal,
- 30) Henry L. Paulson | University of Michigan | Michigan, USA;
- 31) James M. Shine | Brain and Mind Center, The University of Sydney | New South Wales, Australia;
- 32) Jamie D. Feusner | Department of Psychiatry and Biobehavioral Sciences, David Geffen School of Medicine, University of California Los Angeles | Los Angeles, USA;
- 33) João Nuno Moreira | CNC | Coimbra, Portugal;
- 34) João Peça | CNC | Universidade de Coimbra | Coimbra, Portugal
- 35) João Relvas | I3S – Universidade do Porto | Oporto, Portugal;
- 36) John Crary | Icahn School of Medicine at Mount Sinai | New York, USA;
- 37) Joris Winderickx | KULeuven | Leuven, Belgium;
- 38) Juan Sainz Pérez | GENYO - Centre for Genomics and Oncological Research | Granada, Spain;
- 39) Kamran Khodakhah | Einstein College of Medicine | New York, USA;
- 40) Katharina Glomb | Connectomics Lab, Department of Radiology, Lausanne University Hospital and University of Lausanne (CHUV-UNIL) | Lausanne, Switzerland;

- 41) Koudouna Aspasia | General Hospital of Athens | Athens, Greece;
- 42) Laurent Roybon | Lund University | Lund, Sweden;
- 43) Leonardo Bonetti | Center for Music in the Brain, Department of Clinical Medicine, Aarhus University & The Royal Academy of Music Aarhus/Aalborg | Aarhus, Denmark;
- 44) Liliana Mancio | Pasteur Institute | Paris, France;
- 45) Lorena Diéguez | Medical Devices Research Group-INL | Braga, Portugal;
- 46) Luiz Roberto Ramos | Ageing Studies Center, Preventive Medicine Department, UNIFESP | São Paulo, Brazil;
- 47) Manoel Freire | University of State of Paraíba (UEPB) | Campina Grande, Brazil;
- 48) Manuel Bañobre | INL | Braga, Portugal;
- 49) Manuela Lima | Universidade dos Açores | Ponta Delgada, Portugal;
- 50) Marco A. Peres | DUKE-NUS Medical School | Singapore;
- 51) Marco G. Alves | UMIB ICBAS, Universidade do Porto | Oporto, Portugal;
- 52) Maria do Carmo Costa | University of Michigan | Michigan, USA;
- 53) Marika Strindberg | Department of Women's and Children's health, Karolinska Institutet | Stockholm, Sweden;
- 54) Maristela Pereira | Universidade Federal de Goiás | Goiás, Brazil;
- 55) Mark Bisschops | Wageningen University | Wageningen, The Netherlands;
- 56) Massimiliano Mazzone | Leuven Center for Cancer Biology | Leuven, Belgium;
- 57) Matthew Holt | VIB-KU | Leuven, Belgium;

- 58) Modesto Cruz | University of Santo Domingo | Santo Domingo, Dominican Republic;
- 59) Noel de Miranda | LUMC | Leiden, The Netherlands;
- 60) Olaf Riess | Tübingen University | Tübingen, Germany;
- 61) Paola Cocchetti | Università Milano Bicocca | Milano, Italy;
- 62) Paul Hofman | Université Cote d'Azur | Nice, France;
- 63) Paul Kong Thoo Lin | Robert Gordon University | Aberdeen, UK;
- 64) Paul Slesinger | Icahn School of Medicine Mount Sinai | New York, USA,
- 65) Paulo Coelho | Universidade de São Paulo | São Paulo, Brazil;
- 66) Pedro F. Oliveira | QOPNA & LAQV, Department of Chemistry, University of Aveiro | Aveiro, Portugal;
- 67) Pedro Gil | Karolinska Institute | Stockholm, Sweden;
- 68) Pierre Gressens | NeuroDiderot- NeuroKines PREMSTEM UMR 1141 Inserm Hopital Robert Debré | Paris, France;
- 69) Roland Brandt | Osnabrück University | Osnabrück, Germany;
- 70) Rosaria Galanti | Karolinska Institutet | Stockholm, Sweden;
- 71) Sandra Macedo Ribeiro | I3S – Universidade do Porto | Oporto, Portugal;
- 72) Tal Nuriel | Columbia University | New York, USA;
- 73) Teresa Summavielle | I3S – Universidade do Porto | Oporto, Portugal;
- 74) Thorsten Schmidt | Tübingen University, Tübingen, Germany;

- 75) Tim Korevaar | Erasmus Medical Center, University Medical Center | Rotterdam, the Netherlands;
- 76) Victor Anggono | Queensland Brain Institute | St Lucia, Australia;
- 77) Vítor Costa | Yeast Signalling Networks group-Instituto de Investigação e Inovação em Saúde, Universidade do Porto | Oporto, Portugal;
- 78) Wanjin Hong | ASTAR Singapore | Fusionopolis, Singapore;
- 79) Zhanyan Fu | Broad Institute of Harvard and MIT | Cambridge, USA.

Research projects granted in 2021

- 1) Almeida, H. | HaPpY Comorbidity of cHronic Pain and mood disorders: breaking the vicious cYcle! | MSCA;
- 2) Carvalho, A. | Immunometabolic Regulation of Granulomatous Inflammation in Sarcoidosis | FCT;
- 3) Castro, A. | Intermittent fasting as a novel therapeutic strategy for Spinocerebellar Ataxias | National Ataxia Foundation;
- 4) Correia-Pinto, J. | Janus Approach to Cancer Theranostics | CCDR-N;
- 5) Costa, S. | Consultancy and technical services in the area of lung inflammation | EXOGENUS THERAPEUTICS, S.A.;
- 6) Cunha, C. | Dissecting itaconate-mediated mechanisms of antifungal activity in invasive pulmonary aspergillosis | Gilead Research Scholars;
- 7) Ferreira, P. | Mechanisms of action and resistance to the antimalarial Purydrazid | FCT;

- 8) Flores, A. | Examining Observer Effects on Random Processes: A Correlation Matrix | Fundação Bial;
- 9) Jacinto, L. | Multimodal bioelectronics for hybrid brain-machine interfaces | "la caixa" Foundation;
- 10) Lopes, L. | Sistema CAD para análise de imagens de colonoscopias para classificação automática de pólipos | Agência Nacional de Inovação;
- 11) Ludovico, P. | Extracellular Vesicles as Potential Biomarkers in Fabry disease Progression | Amicus Therapeutics UK LTD;
- 12) Ludovico, P. | Infraestrutura Nacional para a Química Biológica e Genética (ICVS) | Operational Programme 'Norte';
- 13) Maciel, P. | Development of over-inhibition of cortical circuits in Down syndrome | FCT;
- 14) Meira, T. | Social memory and its neural correlates in multiple sclerosis | FCT;
- 15) Monteiro, P. | Mechanistic link between neuronal channelopathy and sensory dysfunction in a mouse model of autism spectrum disorder | Federation of European Biochemical Societies;
- 16) Monteiro, S. | The peripheral sympathetic system as a target for immunomodulation in spinal cord injury pathophysiology | FCT;
- 17) Morgado, P. | A new hope for resistant Obsessive-Compulsive Disorder - innovative strategies for outcome prediction and treatment | Fundação Luso-Americana para o Desenvolvimento;
- 18) Nascimento, D. | MiniSOG optogenetics: Harnessing the temporal and spatial control of neuron- astrocyte signaling to treat depression | FCT;
- 19) Oliveira, J. | Neuron-astrocyte signaling in depression: learning from astrocytes how to effectively treat depression | "la caixa" Foundation;

- 20) Pedrosa, J. | A flexible platform for generating synthetic virus to control infectious diseases | "la caixa" Foundation;
- 21) Pereira, V. | Automatic cardiac wall motion evaluation with cardiac magnetic resonance images: a Computer-Aided Diagnosis tool | Agência Nacional de Inovação;
- 22) Pico-Pérez, M. | Influence of sex and gender on the stress response: going beyond the binary framework for improving precision medicine | FCT;
- 23) Salgado, A. | Stem Cells Secretome as a Therapeutic Tool for Spinal Cord Injury Regeneration | Santa Casa da Misericórdia de Lisboa;
- 24) Sousa, J. | Reinforcing the response to COVID-19 pandemic by improving diagnostic tools and capacity to the population of the Minho region | FCT;
- 25) Sousa, N. | Baclofen molecular Action as a promoter of neuronal recovery after spinal cord injury. | FCT;
- 26) Veiga, I. | Defining dihydroartemisinin-piperaquine resistance pathways in the malaria parasite | European Society of Clinical Microbiology and Infectious Diseases (ESCMID);
- 27) Veiga, I. | ENVOLVE | Fundação Calouste Gulbenkian.

3 - Intellectual Property

Copyright

- 1) de Oliveira Cavagna, R., Leal, L. F., de Paula, F. E., Bernardinelli, G. N., & Reis, R. M. (2021). A PCR-Based Approach for Driver Mutation Analysis of EGFR, KRAS, and BRAF Genes in Lung Cancer Tissue Sections. In P. G. Santiago-Cardona (Ed.), *Methods in Molecular Biology*, Vol. 2279. Lung Cancer (pp. 109-126). Humana, ISBN: 978-1-0716-1277-4. doi:10.1007/978-1-0716-1278-1_9;

- 2) Falcão, F., Costa, P., & Pêgo, J. M. (2021). The Role of Technology in Assessment Quality Assurance Processes. In B. Malau-Aduli, R. Hays, & C. van der Vleuten (Eds), Understanding Assessment in Medical Education through Quality Assurance (Ch. 7). McGraw Hill, ISBN: 9781260469653.
- 3) França, M., & Amorim, J. P. (2021). Liver Increased Iron Deposition and Storage Diseases. In E. Quaia (Ed.), Imaging of the Liver and Intra-hepatic Biliary Tract, Medical Radiology (pp. 267-279). Springer, Cham. ISBN 978-3-030-38982-6. doi: 10.1007/978-3-030-38983-3_14.
- 4) Koltaj, T., Reshkin, S., Baltazar, F., & Fliegel, L. (2021). Prostate Cancer Metabolism, From Biochemistry to Therapeutics, 1st Edition. Elsevier, ISBN: 9780323905282.
- 5) Monteiro, P. & Leão, C. (2021). tRIBE: Training in Research Integrity and Bioethics. Independently published (Amazon). ISBN:979-8588516051.

Patents

- 1) Almeida B., Guerreiro J., Campos R., Borme J., Alpuim P., Ferreira P. & Vieira N. | 2021 | Graphene-based malaria sensor, methods and uses thereof | Patent pending;
- 2) Fonseca J., Queirós S., Correia-Pinto J., Lima Estêvão & Vilaça J. | 2021 | Method and device for generating an uncertainty map for guided percutaneous procedures | Patent pending;
- 3) Fonseca J., Queirós S., Correia-Pinto J., Lima Estêvão & Vilaça J. | 2021 | Systems, methods, and devices for registration, and tracking the kidney (and nearby organs) during percutaneous procedures allowing patient and instruments repositioning | Patent pending;
- 4) Veiga I., Catarino S., Minas G. & Baptista V. | Antimalarial agent, methods and uses thereof | Patent pending.

4 - Scientific Recognition

Individual and/or team Prizes, Awards, Nominations

- 1) Almeida, OFX. | Plenary Lecture: The Impoverished Brain | Colombian Society for Biological Psychiatry | Bogotá, Colombia;
- 2) Botelho F., Miranda A., Braga I., Leão R., Teves F., Dias J., Rodrigues F., Oliveira J., Augusto I., Portela C., Febra J., Custódio S., Liu P., Gago P., Silva C. & Pacheco-Figueiredo L. | 1st prize of Clinical Series Assessment – Comparison of drug efficacy for castrate-resistant prostate cancer patients between real life patients and the patients from RCT's | Prossyga Scientific Awards 2021;
- 3) Lamas N. | Giordano Fellowship da European Society of Pathology (ESP) | Liverpool, UK;
- 4) Lamas N. | Harnessing the potential of human pluripotent stem cells to study Amyotrophic Lateral Sclerosis (ALS) and other neurological disorders | Faculdade de Medicina da Universidade Nova de Lisboa | Lisbon, Portugal;
- 5) Meira T. | Best experimental design prize | Harvard Medical School | Postgraduation 2021;
- 6) Meira T. | Best poster prize | Harvard Medical School | Postgraduation 2021;
- 7) Meira T. | Paulo Mendo Prize | Best oral communication | SPNR 2021;
- 8) Meira T. | Prémio Orlando Leitão: Melhor comunicação oral no Congresso SPNeurologia | Santa Eulália, Portugal;
- 9) Meira T. | SPN scholarship | SPN 2021;
- 10) Monteiro P. | Young IBRO Maternity/Parenthood 2021 | Prize attributed by International Brain Research Organization (IBRO) to support early-career Principal Investigators who are approaching parental leave (either via birth or adoption);
- 11) Patricia Monteiro | FEBS Excellence Awards 2021 | Award attributed by Federation of European Biochemical Societies (FEBS) to support research projects in the molecular life sciences from early-career group leaders;
- 12) Pontes O., Costa M., Baltazar F. & Proença F. | V Research Pitches Contest of the Compostela Group of Universities | The Compostela Group of Universities;

- 13) Queirós S. | Best Paper Award in the M&Ms-2 Challenge | Best paper presented at the M&Ms-2 challenge held at the MICCAI 2021 conference;
- 14) Quialheiro A. | Mapping of the Brazilian Diaspora of Science, Technology & Innovation | Embassy of Brazil in Lisbon;
- 15) Rohr P., Santos I., Vicente J., Lengert A., de Lima M., Kahl V., da Silva J., Reis R. & H Silveira H. | Evaluation of genomic instability by BMCyt and telomere length (TL) in Brazilian family farmers exposed to pesticides | XV Congresso da MutaGen-Brasil | Online;
- 16) Salgado A. | Prémio Melo e Castro 2021 | Santa Casa da Misericórdia de Lisboa | Lisbon, Portugal;
- 17) Salgado A. | Prize Melo e Castro for Spinal Cord Injury Research | Santa Casa Neuroscience Awards | Lisbon, Portugal;
- 18) Sampaio-Marques B. & Ludovico P. | Abrogation of endocytosis blocks the spread of alpha-synuclein in the yeast model of synucleinopathies | MICROBIOTEC 2021 - Best Poster Communication Award;
- 19) Sotiropoulos I. | Alzheimer's Association Best Mentor Award in Neuroscience 2021 | Prize attributed by the International Alzheimer's Association for the best mentor in Neuroscience field worldwide | Chicago, USA;
- 20) Veiga I. | 2021 ESCMID-FEMS Award;
- 21) Vieira N. | Winner of Empreender Braga 2021 – pre-acceleration program from Startup Braga - IPLEXMED New Generation Diagnostics;
- 22) Vieira R., Silva D., Laus A., Bacchi C., Silva R., Oliveira-Junior I., Pereira R. & Reis R. | Ancestry of breast cancer patients in Brazil | Brazilian Breast Cancer Symposium | Goiania, Brazil.

Lectures by invitation in Universities/Institutes/Meetings

- 1) Afonso J. | World Microbe Forum | FEMS | June 20-24 | Online;

- 2) Afonso J. | Prognostic and Predictive Biomarkers in Urothelial Bladder Cancer | 4º Simpósio do Curso de Mestrado em Oncologia | Instituto Português de Oncologia do Porto (IPO-Porto) | February 17 | Oporto, Portugal;
- 3) Baltazar F. | Altered metabolism in cancer | Advanced course on oncobiology 5th Ed., CESPU, Instituto Universitário de Ciências da Saúde | April 21 | Gandra, Portugal;
- 4) Baltazar F. | Farmacologia anti-neoplásica | Departamento de Ciências Biomédicas e Medicina, Universidade do Algarve | October 14 | Faro, Portugal;
- 5) Baltazar F. | Role of Lactate Transporters (MCTs) in Cancer and Exploitation as Therapeutic Targets | CEDOC, University of Lisbon | March 3 | Lisbon, Portugal;
- 6) Baltazar F. | Targeting lactate transport as a therapeutic approach in cancer | 33rd AICC ANNUAL CONFERENCE: INTERNATIONAL MEETING ON CANCER METABOLISM | November 22-24 | Turin, Italy;
- 7) Cabral J. | Dynamic behaviour of Brain Network States | Krembil Centre for Neuroinformatics KCNI Speaker Series | February 22 | Online;
- 8) Cabral J. | Models of Brain Network Dynamics | Department of Psychological and Brain Sciences at Indiana University | April 21 | Bloomington, Indiana, USA;
- 9) Carvalho A. | Host genetic signature of susceptibility to fungal disease | 31st European Congress of Clinical Microbiology and Infectious Diseases | July 9-12 | Online;
- 10) Carvalho A. | Host susceptibility to pathogenic fungi | Mycology 2021 | June 11-12 | Online;
- 11) Carvalho A. | Immunometabolic regulation of granulomatous inflammation in sarcoidosis | 37º Congresso de Pneumologia | November 11-13 | Albufeira, Portugal;
- 12) Carvalho A. | Top 10 papers: Basic/immunology/genomics | 10th Trends in Medical Mycology | October 8-11 | Aberdeen, UK;
- 13) Costa B. | New prognostic biomarkers in glioblastoma - EATRIS - Success stories on biomarkers: from bench to the clinical practice. Barriers, tips and tricks | EATRIS Spain + Portugal | November 30 | Online;
- 14) Costa B. | Novas estratégias de combate aos tumores cerebrais | Pint Of Science Portugal | May 19 | Online;

- 15) Costa B. | Reguladores Moleculares e Celulares de Glioblastoma | XII Congresso Nacional da Associação Portuguesa de Neuro-Oncologia, Associação Portuguesa de Neuro-Oncologia | October 14 | Online;
- 16) Espregueira-Mendes J. | ACL – Operative Tx | 18th medi European Sportorthopedics Symposium | November 12 | Malaga, Spain;
- 17) Espregueira-Mendes J. | ACL lesions and rotation instability. Is this a special problem in football? | Circuito Olímpico. Associação brasileira de artroscopia e traumatologia do esporte (SBRATE) | August 21 | Online;
- 18) Espregueira-Mendes J. | ACL Revision: Planning and Strategies? | AEA-SEROD Congress 2021 | September 24 | Online;
- 19) Espregueira-Mendes J. | ACL trends in 2021 | AEA-SEROD Congress 2021 | September 24 | Online;
- 20) Espregueira-Mendes J. | ACL: new trends in evaluation and treatment in 2021 | SACOT et la fédération Algérienne de football | January 16 | Online;
- 21) Espregueira-Mendes J. | Actualities in autologous osteochondral grafts | 41st SICOT Orthopaedic World Congress | September 16 | Online;
- 22) Espregueira-Mendes J. | Bio-Orthopedics: The Future is now | 1st Bio-Orthopedics's online course of the Asociación Argentina de Traumatología del Deporte | March 1 | Online;
- 23) Espregueira-Mendes J. | Cartilagem | Programa Doutoral em Fisioterapia (FADEUP) | April 9 | Online;
- 24) Espregueira-Mendes J. | Le traitement chirurgical des lésions du cartilage en 2021. Où sommes-nous? | 2EME WEBINAIRE: Groupe Algerien de Chirurgie du Genou et d'Arthroscopie | February 13 | Online;
- 25) Espregueira-Mendes J. | Lesiones multiligamentarias de rodilla. Examen clínico e imagen | XX Curso Internacional Teórico-Práctico en Patología de Rodilla (Clinica CEMTRO) | January 28 | Online;
- 26) Espregueira-Mendes J. | Mosaicplasty is still a good option to treat cartilage lesions in 2021? | Vitual Seminars Orto-Trauma | November 19 | Online;

- 27) Espregueira-Mendes J. | New trends in ACL approach in 2021 | XX Simpósio Internacional Clínica CEMTRO | November 18-20 | Online;
- 28) Espregueira-Mendes J. | New trends in ACL in 2021 | 28th annual congress of the Algerian Society of Orthopedic and Trauma Surgery (SACOT) | December 11 | Online;
- 29) Espregueira-Mendes J. | Objective measurement of knee laxity in MRI - Porto Knee Testing Device | EORS 29th Annual Meeting | September 17-19 | Online;
- 30) Espregueira-Mendes J. | Osteoconcrete dissecante do joelho - Qual a abordagem? | XXXI Curso de Reabilitação e Traumatologia no Desporto | May 8-9 | Online;
- 31) Espregueira-Mendes J. | Plastias extra-articulares anti-rotatórias: da reconstrução do ligamento antero-lateral (LAA) às tenodeses antero-externas | Curso Artroscopia do Joelho - NOVA Medical School | June 18-19 | Online;
- 32) Espregueira-Mendes J. | The MPFL complex reconstruction. A more anatomic technique | 18th medi European Sportorthopedics Symposium | November 12 | Malaga, Spain;
- 33) Falcão A. | Oligodendrocyte heterogeneity in health and disease | Simpósio anual da rede glial portuguesa | November 30t | Coimbra, Portugal;
- 34) Falcão A. | Single-cell OMICS in oligodendroglia: opening doors to understand Multiple Sclerosis | Biotechnology & Food Engineering Technion Seminars | February 10| Online;
- 35) Falcão A. | Single-cell OMICS in oligodendroglia: opening doors to understand Multiple Sclerosis | ILC seminars | November 10 | Online;
- 36) Falcão A. | The CSF shuttle: from the choroid plexus to the myelin and back! | III simpósio em Biologia Aplicada | October 7 | Online;
- 37) Falcão A. |Single-cell OMICS in oligodendroglia: opening doors to understand Multiple Sclerosis | Bioinformatic Open Days | May 7 | Online;
- 38) Horta A. | Hepathic infections | Curso de Pós-Graduação em Doenças Infeciosas CHUP- 2ª Edição | April 12 – June 15 | Online;
- 39) Horta A. | Hepatitis C: in the path for elimination | 14ª Reunião Nacional do GEPCOI | November 12-13 | Coimbra, Portugal;
- 40) Horta A. | Hepatitis C: which challanges remain? | 14ª Reunião Nacional do GEPCOI | November 12-13 | Coimbra, Portugal;

- 41) Horta A. | HIV infection and tuberculosis | Curso de Pós-Graduação Infecção VIH/SIDA Prof. Doutor Henrique Lecour 13ª edição | January 1 – March 30 | Online;
- 42) Horta A. | Immune reconstitution syndrome | 2º Curso Intensivo Infecção e doença VIH - Sociedade Portuguesa de Medicina Interna – Núcleo de Estudos da Doença VIH | September 23-26 | Tomar, Portugal;
- 43) Horta A. | Improve the quality of life in HIV patients | 17º ENAI | November 24-26 | Oporto, Portugal;
- 44) Horta A. | Infection by HIV and new therapeutic approaches | Glasgow e CROI e Projeto de Investigação CHUC | June 19 | Online;
- 45) Horta A. | Infections in drug users | | Curso de Pós-Graduação em Doenças Infecciosas CHUP- 2ª Edição | April 12 – June 15 | Online;
- 46) Horta A. | Opportunistic viral infections and co-infections | 2º Curso Intensivo Infecção e doença VIH - Sociedade Portuguesa de Medicina Interna – Núcleo de Estudos da Doença VIH | September 23-26 | Tomar, Portugal;
- 47) Horta A. | Opportunistic viral infections and co-infections | Co-infection VIH/SARS-CoV-2 | 9º Congresso Pandemias na Era da Globalização | May 25-26 | Online;
- 48) Horta A. | Opportunistic viral infections and co-infections | Impact in patient follow-up | 9º Congresso Pandemias na Era da Globalização | May 25-26 | Online;
- 49) Horta A. | Treatment of opportunistic viral infections. Co-infection by VHB/VHC | Cuidados Farmacêuticos ao Doente com Infecção VIH - Curso da Associação Portuguesa de farmacêuticos Hospitalares | May 8-10 | Online;
- 50) Lamas, N. | Harnessing the potential of human pluripotent stem cells to study Amyotrophic Lateral Sclerosis (ALS) and other neurological disorders | Introdução à Medicina Regenerativa do Mestrado Integrado | Faculdade de Medicina da Universidade Nova de Lisboa | May 13; Lisbon, Portugal;
- 51) Maciel P. | Translational aspects of polyglutamine diseases: novel biomarkers and therapeutic approaches | XVII Meeting of the Portuguese Society for Neuroscience | December 1-3 | Coimbra, Portugal;

- 52) Meira T. | The role of hippocampal CA2 area in social memory (dys)function | Palestra em Pós-graduação em Fisiologia e Farmacologia do Departamento de Fisiologia e Biofísica da Universidade Federal de Minas Gerais | January 21 | Belo Horizonte, Brazil;
- 53) Monteiro P. | SHANK proteins: roles at the synapse and in autism spectrum disorder | Inserm-Université Paris Diderot | October 28 | Online;
- 54) Nobrega C. | FlowFish: assessment of relative telomere length by flow cytometry | XVII Congress of the Iberian Society of Cytometry | June 14 | Online;
- 55) Nogueira R. | Fenótipos Placentares e Implicações Clínicas | HGO | September 15 | Almada, Portugal;
- 56) Nogueira R. | Skeletal Dysplasias Fetal Phenotype | APDPN Annual Meeting | October 1-2 | Aveiro, Portugal;
- 57) Oliveira TG. | Differential impact of hippocampal longitudinal axis modulation in chronic stress and Alzheimer's disease | NeuroSpin | July 6 | Paris, France;
- 58) Oliveira TG. | Studying mood disorders and hippocampal functioning with lipidomic approaches | Sphingolipid Biology Webinar Series | February 8 | Online Seminar;
- 59) Oliveira TG. | The impact of chronic stress on the brain lipidome – implications for mood disorders and Alzheimer's disease | XXI Portuguese Society for Biochemistry, National Congress of Biochemistry | October 14-16 | Évora, Portugal;
- 60) Pinto L. | Time-dependent functional correlates of adult hippocampal cytogenesis: Relevance to Depression | Seminars in the Institute for Clinical and Biomedical Research (iCBR) | April 21 | Coimbra, Portugal;
- 61) Pinto L. | Time-dependent functional correlates of adult hippocampal cytogenesis: Relevance to Depression | Seminars in Mental Health organized by the Portuguese Society for Neuroscience (SPN) | July 19 | Online;
- 62) Pinto P. | Da dor aguda à dor crónica pós-cirúrgica: a influência dos fatores psicológicos e as implicações para a prática clínica | VII Congresso APED (Associação Portuguesa para o Estudo da Dor) | October 15-16 | Lisbon, Portugal;

- 63) Pinto P. | Da dor aguda à dor crónica pós-cirúrgica: a influência dos fatores psicológicos e as implicações para a prática clínica | Colóquio Dor, Psicologia e Pandemia | Instituto Universitário de Ciências Psicológicas, Sociais e da Vida (ISPA) | April 16 | Lisbon, Portugal;
- 64) Quialheiro A. | Use of technology and the experience of this use in the COVID pandemic | VIII Congresso Internacional de Envelhecimento Humano. | November 11-13 | Online;
- 65) Quialheiro A. | Use of technology by seniors: Conquest of the smartphone and impact on health | Interdisciplinary Seminar on Maturity and Citizenship | August, 26 | Online;
- 66) Quialheiro A. | Webinar Moderator on Challenges of the Decade of Healthy Aging | European Anti-Poverty Network (Braga Center) | April 30 | Online;
- 67) Rolanda C. | Importância da endoscopia digestiva alta (pré e pós-operatório) | MasterClass Bariátrica - Sociedade Portuguesa Cirurgia da Obesidade | Módulo Gastrenterologia | May 25 | Porto, Portugal;
- 68) Rolanda C. | Simulation in surgical Education – theory and practice | XIV congresso SPCMIN | October 19-20 | Peniche, Portugal;
- 69) Rolanda C. | Transição na Doença de Wilson pediátrica | Escola de Hepatologia EM-UM | July 3 | Braga, Portugal;
- 70) Salgado A.J. | Multidisciplinary Strategies for Spinal Cord Injury Regeneration | X Meeting of the SPPCV, 2021 | October 28-30 | Online;
- 71) Salgado A.J. | Regenerative Effects of the Secretome of Adipose Tissue derived Stem cells | iFATS 2021 | November 18-20 | Online;
- 72) Salgado A.J. | Regenerative Interventions in Parkinson's Disease Using Stem Cells Secretome | TERMIS-WC 2021 | November 15-19 | Online;
- 73) Salgado A.J. | Regenerative Interventions in the CNS using Stem Cells Secretome | Koç University, 2021 | April 23 | Online;
- 74) Teixeira Rodrigues A. | Fundamentos de Farmacoeconomia | Department of Health Sciences, University of Aveiro | April 24 | Aveiro, Portugal;
- 75) Teixeira Rodrigues, A. | Community Pharmacies and Real World Evidence | Pharmaceutical Group of the European Union | April 20 | Online;

- 76) Teixeira Rodrigues, A. | Educação e Promoção da Saúde através das Farmácias Comunitárias | Mestrado Integrado em Ciências Farmacêuticas, Faculdade de Farmácia, Universidade de Lisboa | Abril 24 | Lisbon, Portugal
- 77) Teixeira Rodrigues, A. | Setting goals for the decade ahead FIP DG 12: Pharmacy intelligence | FIP: International Pharmaceutical Federation | Abril 24 | Online;
- 78) Texeira-Castro A. | From C. elegans to mouse: animal models to study Machado-Joseph disease | Universidade dos Açores | Mestrado em Ciências Biomédicas | March 31 | Ponta Delgada, Portugal.

Editorial activity (Scientific Journals ...)

- 1) Almeida O. | Chief Editor | Frontiers in Behavioral Neuroscience - Section: Behavioral Endocrinology;
- 2) Almeida O. | Editor-in-Chief | Aging Brain;
- 3) Baltazar F. | Associate Editor | BMC cancer;
- 4) Baltazar F. | Associate Editor | Frontiers in Nutrition;
- 5) Cabral J. | Associate Editor | Frontiers in Systems Neuroscience;
- 6) Cabral J. | Associate Editor | Network Neuroscience;
- 7) Cabral J. | Associate Editor | Neuroimage;
- 8) Carvalho A. | Associate Editor | Frontiers in Microbiology, section Infectious Diseases;
- 9) Carvalho A. | Editorial Advisory Board Member | The Journal of Infectious Diseases;
- 10) Carvalho A. | Review Editor | Frontiers in Cellular and Infection Microbiology;
- 11) Castro G. | Review Editor | Frontiers in Immunology;

- 12) Castro G. | Editorial Board | Pathogens;
- 13) Cerqueira C. | Associate Editor | Frontiers in Behavioral Neuroscience – section: Emotion Regulation and Processing;
- 14) Costa P. | Associate Editor | Educational Psychology | Specialty section of Frontiers in Psychology and Frontiers in Education;
- 15) Espregueira-Mendes J. | Associate Editor | The Journal Cartilage & Joint Preservation;
- 16) Espregueira-Mendes J. | Member of scientific Board | Revista Medicina Desportiva;
- 17) Espregueira-Mendes J. | Member of the Editorial Board | Asian Journal of Arthroscopy;
- 18) Espregueira-Mendes J. | Member of the Editorial Board | Knee Surgery Sports Traumatology and Arthroscopy - KSSTA Journal;
- 19) Espregueira-Mendes J. | Member of Board of Trustees | Journal of Experimental Orthopaedics;
- 20) Espregueira-Mendes J. | Member of Board of Trustees | Journal of ISAKOS;
- 21) Falcão A. | Guest editor | Frontiers in Cellular Neuroscience | Section Cellular Neuropathology;
- 22) Granja S. | Guest Associate Editor | Frontiers in Oncology;
- 23) Horta A. | Scientific board member | Revista Portuguesa de Doenças Infecciosas e Microbiologia Clínica;
- 24) Lamas N. | Review Editor | Frontiers in Medicine – Pathology;
- 25) Leite-Almeida H. | Associate Editor | Frontiers in Pain Research;
- 26) Leite-Almeida H. | Editor | Dor;
- 27) Leite-Almeida H. | Guest Associate Editor | Front Beh Neurosci;
- 28) Leite-Almeida H. | Guest Associate Editor | Front Systems Neurosci;

- 29) Ludovico L. | Editor | Cancers, Section Board for Molecular Cancer Biology;
- 30) Marques F. | Editorial board | Frontiers in Cancer Endocrinology;
- 31) Martinho O. | Guest Editor | Cancers;
- 32) Monteiro P. | Review editor | Frontiers in Synaptic Neuroscience;
- 33) Nogueira R. | Editorial-Board Member | BMJ Case Reports;
- 34) Nogueira R. | Editorial-Board Member | The Gynecologist;
- 35) Nogueira-Silva C. | Associate Editor | Acta Obstétrica e Ginecológica Portuguesa;
- 36) Oliveira J. | Associate Editor | Frontiers in Cellular Neuroscience: Non-neuronal cells;
- 37) Osório N. | Associate Editor | Frontiers in Cellular and Infection Microbiology;
- 38) Osório N. | Associate Editor | Frontiers in Genetics;
- 39) Osório N. | Associate Editor | Frontiers in Microbiology;
- 40) Osório N. | Associate Editor | Genes;
- 41) Pêgo J. | Associate Editor | Behavioral Endocrinology;
- 42) Pêgo J. | Associate Editor | Frontiers in Behavioral Neuroscience;
- 43) Picó-Pérez M. | Review editor | Frontiers in Psychiatry;
- 44) Pinto L. | Associate Editor | Journal Cells | Frontiers in Neuroscience;
- 45) Pinto L. | Topic Editor | Journal Frontiers in Behavioral Neuroscience | Neural Plasticity and Behavioral Responses to Adversity;
- 46) Quialheiro A. | Member of the editorial board | New aging guidelines: diversities, care, inclusion and visibility;

- 47) Reis R. | Associate Editor | Frontiers in Oncology;
- 48) Reis R. | Associate Editor | Pathobiology;
- 49) Reis R. | Editorial board member | Brazilian Journal of Medical and Biological Research;
- 50) Reis R. | Editorial board member | Current Oncology;
- 51) Reis R. | Editorial board member | Mastology;
- 52) Reis R. | Editorial board member | Neuropathology;
- 53) Reis R. | Editorial board member | Surgical and Experimental Pathology;
- 54) Rodrigues AJ. | Associate Editor | Frontiers in Behavioral Neuroscience;
- 55) Rodrigues AJ. | Editorial board | Brain Research;
- 56) Rodrigues AJ. | Editorial board | Frontiers in Cellular Neuroscience;
- 57) Rodrigues F. | Associate Editor | Frontiers in Microbiology;
- 58) Rolanda C. | Editorial board | Endoscopy;
- 59) Rolanda C. | Editorial board | GE – Jornal Português de Gastreenterologia;
- 60) Salgado A. | Associate Editor | Biochimie;
- 61) Salgado A. | Associate Editor | Biomed Research International – Section: Biomaterials;
- 62) Salgado A. | Associate Editor | Stem Cells International;
- 63) Salgado A. | Associate Editor | BMC Neuroscience – Section: Anatomy, development, plasticity and repair;
- 64) Santos N. | Associate Editor | Behavioural Brain Research;

65) Santos N. | Editorial Board | Aging Brain;

66) Silvestre R. | Associate Editor | Frontiers in Immunology;

67) Veiga I. | Editorial board | The International Journal of Infectious Diseases and Therapy;

68) Veiga I. | Guest Editor | Special Issue "Recent Advances in Malaria Diagnosis" | Diagnostics, MDPI.

Scientific Advisor/Board Member/Jury of external Institutions/Foundations/Scientific Societies:

1) Afonso J. | Association member | ASPIC - Associação Portuguesa de Investigação em Cancro;

2) Afonso J. | Association member | EACR - European Association for Cancer Research;

3) Afonso J. | Association member | ISCaM - International Society for Cancer Metabolism;

4) Almeida O. | Consultant | Hong Kong Research Grants Council;

5) Almeida O. | Consultant | Italian Ministry of Education, University and Research;

6) Almeida O. | Evaluator | United Kingdom Research & Innovation (UKRI);

7) Almeida O. | Expert Neuroscience, Psychology & Social Sciences Panels | National Science Center, Poland;

8) Almeida O. | Member Scientific Council | BIAL Foundation;

9) Almeida O. | Translational Medicine Panel Member | French Agence National de la Recherche;

10) Baltazar F. | Board member | International Society of Cancer Research - ISCaM;

11) Baltazar F. | Grant reviewer | Fonds de la Recherche Scientifique – FNRS;

12) Baltazar F. | Grant reviewer | India Alliance DBT Wellcome;

- 13) Baltazar F. | Grant reviewer | Research Council Grant Review Board, Hong Kong;
- 14) Carvalho A. | Board of Directors | Portuguese Society for Immunology;
- 15) Carvalho A. | Board of Directors | Portuguese Society for Medical Mycology;
- 16) Carvalho A. | Scientific Council of Life and Health Sciences (CCCVS) | Fundação para a Ciência e a Tecnologia (FCT);
- 17) Castelhana-Carlos M. | Board Member | FELASA Education and Training Accreditation Board;
- 18) Castelhana-Carlos M. | President of Direction Board/ SPCAL - Portuguese Society of Laboratory Animals Sciences;
- 19) Correia de Sousa J. | Member | Education Sub-Committee of the International Primary Care Respiratory Group;
- 20) Correia de Sousa J. | Member of the Advisory Board | Portuguese National Respiratory Diseases Program - PNDR;
- 21) Correia de Sousa J. | Member of the Board of Trustees | National Health Service Foundation, Portugal;
- 22) Correia de Sousa J. | Member of the Editorial Board | Minerva Respiratory Medicine;
- 23) Correia de Sousa J. | Member of the Group of Editorial Advisors | European Journal of General Practice;
- 24) Correia de Sousa J. | Member of the Scientific Board | Polska Medycyna Rodzinna (Polish Family Medicine) Journal;
- 25) Correia de Sousa J. | Member of the Scientific Committee | Portuguese Journal of Family Practice;
- 26) Costa B. | Board Member | Portuguese Association for Cancer Research (ASPIC);

- 27) Costa B. | National Delegate MC Member | European COST Action;
- 28) Costa M. | Graduate Women in Science - GWIS | National Fellowship Program Reviewer;
- 29) Espregueira-Mendes J. | 2nd Vice-President | International Society of Arthroscopy | Knee Surgery and Orthopaedic Sports Medicine - ISAKOS;
- 30) Espregueira-Mendes J. | Board Member of the Patellofemoral Foundation;
- 31) Espregueira-Mendes J. | Chairman of the Finance Committee | International Society of Arthroscopy | Knee Surgery and Orthopaedic Sports Medicine – ISAKOS;
- 32) Espregueira-Mendes J. | FIFA Medical Advisory Board – FMCE;
- 33) Espregueira-Mendes J. | Life member of the European | Society of Sports Traumatology | Knee Surgery and Arthroscopy – ESSKA;
- 34) Espregueira-Mendes J. | Member of the Bylaws Committee | International Society of Arthroscopy | Knee Surgery and Orthopaedic Sports Medicine – ISAKOS;
- 35) Espregueira-Mendes J. | Member of the Committee | Committees of the International Society of Arthroscopy | Knee Surgery and Orthopaedic Sports Medicine – ISAKOS;
- 36) Espregueira-Mendes J. | Member of the Publications Committee | International Society of Arthroscopy | Knee Surgery and Orthopaedic Sports Medicine – ISAKOS;
- 37) Espregueira-Mendes J. | Member of the Site Selection Committee | International Society of Arthroscopy | Knee Surgery and Orthopaedic Sports Medicine – ISAKOS;
- 38) Figueiredo L. | Associate Member | Examination Committee of the European Board of Urology;
- 39) Gonçalves R. | Reviewer | Graduate Women in Science – GWIS | National Fellowship Program;
- 40) Horta A. | Membership | Associação Portuguesa para o Estudo da SIDA (APECS);

- 41) Horta A. | Membership | Colégio da Especialidade de Doenças Infeciosas e Sociedade Portuguesa de Doenças Infeciosas e Microbiologia Clínica;
- 42) Horta A. | Membership | Sociedade Portuguesa de Medicina do Viajante;
- 43) Ludovico P. | Evaluation Commission | Relatórios Científicos Finais de projetos IC&DT 2019-2022 | CA Biologia Experimental e Bioquímica, Portugal;
- 44) Ludovico P. | Evaluation Commission | Relatórios Científicos Finais de projetos IC&DT 2019-2022 | CA Ciências da Saúde e do Desporto, Portugal;
- 45) Ludovico P. | Evaluator | Concurso para Atribuição de Bolsas de Investigação para Doutoramento – 2021;
- 46) Ludovico P. | French National Cancer Institute, France;
- 47) Ludovico P. | Fund for Scientific Research | FNRS, Belgium;
- 48) Ludovico P. | Secretary | Assembleia Geral da Sociedade Portuguesa de Bioquímica;
- 49) Monteiro P. | Advisory Board Member of EMBO | Scientific Exchange Grants, European Molecular Biology Organization (EMBO);
- 50) Nóbrega C. | Reviewer for Graduate Women in Science (GWS) Fellowships;
- 51) Nogueira-Silva C. | General secretary | Portuguese Society of Obstetrics and Maternal-fetal Medicine;
- 52) Oliveira TG. | Scientific Advisory Board | Ceracuity Therapeutics;
- 53) Oliveira TG. | Vice-President | Portuguese Society for Neuroscience;
- 54) Palha J. | Member of the Finance Committee | Society for Neurosciences, USA;
- 55) Palha J. | Member of the Scientific Board | Bial Foundation, Portugal;

- 56) Pêgo J. | PhD fellowships | Biomedical Committee | FCT;
- 57) Pinto L. | Co-founder Member | European College of NeuroPsychopharmacology (ECNP)
Thematic Working Group on Stress Resilience;
- 58) Pinto L. | Member of the Research Foundation | Flanders (FWO) Review College;
- 59) Pinto L. | Member of the Scientific Programme Committee | 38th ECNP Congress 2023;
- 60) Rodrigues R. | Reviewer | 2021 Graduate Women in Science, GWIS National Fellowships
Program USA;
- 61) Rolanda C. | Junta Diretiva | CEDEA (Clube Endoscópico Do Eixo Atlântico);
- 62) Salgado A. | President | Portuguese Society for Stem Cells and Cellular Therapies;
- 63) Sampaio-Marques B. | Jury Evaluator | Graduate Women in Science, United States;
- 64) Sampaio-Marques B. | Jury Evaluator | National Science Center, Poland;
- 65) Sotiropoulos I. | Scientific board member | European College of Neuropsychopharmacology
(ECNP);
- 66) Veiga, I. | Fellowship committee | Graduate Women in Science – GWIS | Program competition,
USA;
- 67) Veiga, I. | Fellowship committee | iMed Conferente 13.0 | Innovate Competition;
- 68) Veiga, I. | Membership | American Society for Microbiology (ASM)
- 69) Veiga, I. | Membership | Research Network “ESCMID” | Switzerland;
- 70) Veiga, I. | Membership | Research Network “Graduate Women in Science - GWIS, USA;
- 71) Veiga, I. | Scientific Advisory board | Shivajirao Kadam Institute of Technology and
Management SKITM, India.

Chairman, Organizing committee, Scientific Committee for Congresses of National / International Scientific Societies;

- 1) Baltazar F. | Chair Committee | 8th ISCaM;
- 2) Carvalho C. | Organizing committee | International Immunology Day: Advances on the Immune Responses during COVID-19;
- 3) Carvalho C. | Organizing committee | XLVI Annual Meeting of the Portuguese Society for Immunology;
- 4) Castelhana Carlos M. | 1st SPCAL Scientific Day;
- 5) Costa B. | Scientific Chair | II ASPIC-ASEICA International Meeting – Current Trends in Precision Medicine in Cancer;
- 6) Fraga A. | Chairman - Mucosal Immunity Session | XLVI Annual Meeting Portuguese Society for Immunology - Current challenges and emerging topics in immunology;
- 7) Ludovico P. | Chair | XVII Congresso da Sociedade Ibérica de Citometria;
- 8) Maciel P. | Scientific Committee | Portuguese Society for Human Genetics annual meeting;
- 9) Maciel P. | Scientific Committee | Portuguese Society for Neuroscience biennial meeting;
- 10) Nogueira-Silva C. | Organizing committee | iGO: Curso de Iniciação à Especialidade de Ginecologia e Obstetrícia;
- 11) Nogueira-Silva C. | Scientific committee | 22nd Congress of Obstetrics and Gynecology;
- 12) Nogueira-Silva C. | Scientific committee | 3º Webinar SPOMMF: Casos clínicos em Obstetrícia e Medicina Materno-Fetal;

- 13) Nogueira-Silva C. | Scientific committee | Reunião da SPOMMF: Acretismo placentário: desafios obstétricos;
- 14) Oliveira J. | Chair | PT Glial Network;
- 15) Palha J. | Chairman ORPHEUS Annual Meeting | April 22-24th 2021 | Online;
- 16) Quilheiro A. | Organizing committee | XVIII International Congress on Human Aging;
- 17) Rolanda C. | President | | III Reunião anual da SPED - Qualidade em colonoscopia;
- 18) Rolanda C. | Presidente of the round table | XXXVI Reunião Anual do NGHD;
- 19) Silvestre R. | Organizing committee | XLVI Annual Meeting Portuguese Society for Immunology;
- 20) Veiga, I. | Scientific organizing committee | International Congress of Scientific Research.

Visiting Professor or Scholars

- 1) Coimbra C. | Visited Albert Einstein College of Medicine | Training in the chronic surgical implantation of silicon probes, in order to learn the necessary procedures for surgery, recording, and data analysis;
- 2) Lamas N. | International internship at CHUNice, Nice, France | Molecular and Ocular Pathology;
- 3) Lamas N. | International internship at Wills Eye Hospital, Filadélfia – USA | Molecular and Ocular Pathology.

5 - Translation & Entrepreneurship Initiatives

Patents Business Ownership or Licensing/Selling

Clinical Trials

- 1) Antunes, H. | APD334-301: A Phase 3, Randomized, Double-Blind, Placebo-Controlled, 52-week Study to Assess the Efficacy and Safety of Etrasimod in Subjects with Moderately to Severely Active Ulcerative Colitis | IQVIA;
- 2) Antunes, H. | APD334-302: A Phase 3, Randomized, Double-Blind, Placebo-Controlled, 12-week Study to Assess the Efficacy and Safety of Etrasimod in Subjects With Moderately to Severely Active Ulcerative Colitis | IQVIA;
- 3) Antunes, H. | APD334-303: An Open-Label Extension Study of Etrasimod in Subjects with Moderately to Severely Active Ulcerative Colitis | IQVIA;
- 4) Antunes, H. | Doença de Crohn | AbbVie;
- 5) Antunes, H. | Double-blind, randomized, placebo-controlled, Phase II/III trial on the efficacy and tolerability of treatment with budesonide oral suspension vs. placebo in children and adolescents with eosinophilic esophagitis | CTI;
- 6) Bessa, J. | A Randomized, double-blind, active-controlled, international, multicenter study to evaluate the efficacy, safety, and tolerability of flexibly dosed esketamine nasal spray plus a new oral antidepressant compared to a placebo nasal spray plus a new standard of-care oral antidepressant in adult subjects with treatment-resistant depression | Janssen / IQVIA;
- 7) Bessa, J. | Janssen 54135419DEP4001 : treatment resistant depression cohort study in Europe | IQVIA / Janssen;
- 8) Capela, C. | A Phase 3, Multicenter, Randomized, Double-Blinded, Placebo-Controlled Trial to Evaluate the Efficacy and the Safety of Efgartigimod (ARGX-113) PH20 Subcutaneous in Adult Patients With Primary Immune Thrombocytopenia | ICON / Argenx;
- 9) Capela, C. | Efeitos de uma camisola emitindo radiação de infravermelho longo em doentes com fibromialgia;

- 10) Carvalho, A. | A randomised, double-blind, placebo-controlled, Phase III trial to determine the efficacy and safety of inhaled SNG001 for the treatment of patients hospitalised due to moderate COVID-19, PXL 253859 | Parexel / Synairgen;
- 11) Carvalho, A. | B5091007: Phase III, placebo-controlled, endpoint driven vaccine efficacy study for prevention of Clostridium difficile infection in subjects 50 years or older | ICON / Pfizer;
- 12) Carvalho, A. | Characterization of HIV patients initiating or switching antiretroviral treatment in Portugal (START Study) | KeyPoint / MSD;
- 13) Carvalho, A. | GENSARC | PTX3-mediated innate regulation of inflammation in sarcoidosis;
- 14) Carvalho, A. | Sepsis@Direct | Early detection of Sepsis using a novel biomarker (BERRIA) and a rapid Sepsis @Direct test prototype;
- 15) Cerqueira, J. | A 2-year Prospective Study to Assess Health-related Quality of Life in Subjects with Highly-Active Relapsing Multiple Sclerosis Treated with Mavenclad® | Parexel / Merck;
- 16) Cerqueira, J. | A Multicenter, Randomized, Double-blind, Parallel-group, Placebo-controlled Variable Treatment Duration Study Evaluating the Efficacy and Safety of Siponimod (BAF312) in Patients With Secondary Progressive Multiple Sclerosis Followed by Extended Treatment | Novartis;
- 17) Cerqueira, J. | A Multi-Site, Open-Label Extension Trial of Oral RPC1063 in Relapsing Multiple Sclerosis | PPD / Celgene;
- 18) Cerqueira, J. | A phase 3, randomized, double-blind efficacy and safety study comparing SAR442168 to teriflunomide (Aubagio) in participants with nonrelapsing secondary progressive multiple sclerosis | Sanofi;
- 19) Cerqueira, J. | A phase 3, randomized, double-blind efficacy and safety study comparing SAR442168 to placebo in participants with primary progressive multiple sclerosis | Sanofi;

- 20) Cerqueira, J. | A Phase III Multicenter, Randomized, Double-Blind, Double-Dummy, Parallel-Group Study To Evaluate The Efficacy And Safety Of Fenebrutinib Compared With Ocrelizumab In Adult Patients With Primary Progressive Multiple Sclerosis | Roche;
- 21) Cerqueira, J. | A Phase IIIB multicenter, randomized, double-blind, controlled study to evaluate the efficacy, safety and pharmacokinetics of a higher dose of ocrelizumab in adults with relapsing multiple sclerosis | Roche;
- 22) Cerqueira, J. | A Randomized, Double-Blind, Double-Dummy, Placebo-Controlled, 3-Arm, Parallel-Group Study in Pediatric Subjects Aged 10 Through 17 Years to Evaluate the Efficacy and Safety of BG00012 and BIIB017 for the Treatment of Relapsing-Remitting Multiple Sclerosis | IQVIA / BIOGEN;
- 23) Cerqueira, J. | A single arm, open label multicentre extension study to evaluate the effectiveness and safety of ocrelizumab in patients with multiple sclerosis previously enrolled in a F. Hoffmann-LA Roche Sponsored Ocrelizumab Phase IIIb/IV Clinical Trial | ROCHE;
- 24) Cerqueira, J. | An open-label, single-arm astudy to evaluate the effectiveness and safety of ocrelizumab in patients with early relapsing remitting multiple sclerosis | Roche;
- 25) Cerqueira, J. | An Open-Label, Single-Arm Study to Evaluate the Effectiveness and Safety of Ocrelizumab in Patients With Early Stage Relapsing Remitting | Quinteles / Roche;
- 26) Cerqueira, J. | Efficacy and Safety of Ofatumumab Compared to Teriflunomide in Patients With Relapsing Multiple Sclerosis | Novartis,
- 27) Cerqueira, J. | Ensaio clínico de fase IIIb em doentes com Esclerose Múltipla Primária Progressiva (EMPP) | PPD/Roche;
- 28) Cerqueira, J. | Ensaio de braço único, prospetivo, multicêntrico, aberto, para avaliar a eficácia do tratamento com ofatumumab e resultados reportados pelo doente (PRO), em doentes com Esclerose Múltipla com surtos (EMS) após tratamento com fumarato de dimetilo (DMF) ou fingolimo | Novartis;

- 29) Cerqueira, J. | Estudo de Fase III, multicêntrico, aleatorizado, de grupos paralelos, em dupla ocultação e dupla simulação, controlado por substância ativa de Evobrutinib em comparação com Teriflunomide, em participantes com esclerose múltipla recidivante para avaliar a eficácia e segurança | MSD / IQVIA;
- 30) Cerqueira, J. | Extensão aberta, de braço único, multicêntrica, para avaliar a segurança, a tolerabilidade e a eficácia de longo prazo de ofatumumab em doentes com esclerose múltipla recidivante (EMR) | Novartis;
- 31) Cerqueira, J. | Impacto do Modafinil na cognição em Esclerose Múltipla;
- 32) Cerqueira, J. | Long-term Extension to Study AC-058B301 to Investigate Safety, Tolerability and Disease Control of Ponesimod 20 mg in Patients With Relapsing Multiple Sclerosis (OPTIMUM-LT) | Covance / Actelion;
- 33) Cerqueira, J. | Open-label, Randomized, 2-arm, Active Comparator Study to Evaluate Safety and Tolerability in Portuguese Patients with Relapsing Remitting Multiple Sclerosis (MS) Transitioning from Standard-of-care Subcutaneous Interferon Therapy to Peginterferon Beta 1a (PLEGRIDY™) | Eurotrials / Biogen;
- 34) Cerqueira, J. | Phase 3, randomized, double-blind efficacy and safety study comparing SAR442168 to teriflunomide (Aubagio) in participants with relapsing forms of multiple sclerosis | Sanofi;
- 35) Cerqueira, J. | Relapsing Multiple Sclerosis | Quinteles / Biogen;
- 36) Cerqueira, J. | Tysabri in Early Relapsing Remitting Multiple Sclerosis Patients – Tysabri Patient Initiation after Failure of the Initial DMT | Prime Focus / Biogen;
- 37) Cruz, A. | Klebsiella | Estudo genómico e epidemiológico de infeções por Klebsiella pneumoniae;

- 38) Curva, M. | NeurImp4B | Neural correlates of impulsive behavior: from bench to bedside to bench;
- 39) Dias, E. | SENTINEL | Novo biosensor injectável para monitorização contínua remota de pacientes oncológicos com elevado risco de recidiva;
- 40) Dias, E. | TryptoBPH | Proof-of-concept study to evaluate the safety and efficacy of tryptophan in 116 patients with BPH,
- 41) Mariz, J. | POCUS 1 | pulmonar na abordagem da COVID 19 - A experiência do Serviço de Urgência do Hospital de Braga;
- 42) Mariz, J. | POCUS 2 | Avaliação POCUS na lesão renal aguda;
- 43) Martins, S. | MSCA-IF | Desenvolvimento de um dispositivo baseado em células primárias humanas para estudos in vitro de absorção intestinal visando o desenvolvimento de novas terapias personalizadas;
- 44) Miranda, A. | ReTARD | Estudo Prospetivo ReTard (Restrições Tardias de Crescimento Fetal);
- 45) Morgado, P. | Multicenter retrospective study to analyse the impact of treatment with paliperidone palmitate on clinical outcomes and hospital resource utilization in adult patients with schizophrenia in Portugal | Eurotrials / Janssen;
- 46) Morgado, P. | A multimodal neuroimaging approach to predict treatment response in patients with OCD;
- 47) Morgado, P. | Alterações Metabólicas em Doentes Tratados com Antipsicóticos: um Estudo Observacional | W4Research / Angelini;
- 48) Morgado, P. | CMI-OCDB | Influence of individual differences in reward sensitivity on the modulation of cognitive-motivational interactions in patients with obsessive-compulsive disorder;

- 49) Morgado, P. | Efficacy of Pramipexole Versus Risperidone Treatment in Patients with Refractory Obsessive-compulsive Disorder (OCD): a Randomized, Controlled, and Double-blinded Clinical Trial;
- 50) Mota, P. | A Phase 3 Double-Blind, Randomized, Placebo-Controlled, Multi-Center Study to Evaluate the Efficacy, Safety and Tolerability of Vibegron in Men with Overactive Bladder (OAB) Symptoms on Pharmacological Therapy for Benign Prostatic Hyperplasia (BPH) | Parexel;
- 51) Mota, P. | A Phase 3, Randomized, Double Blind, Placebo Controlled Study of Talazoparib with Enzalutamide in Metastatic Castration Resistant Prostate Cancer | inVentiv Health / Pfizer;
- 52) Mota, P. | ELEVUS | Functional Recovery of Injured Cavernous Nerve Mediated by a Bioactive Fibrous Membrane Comprising Endogenous Nerve Growth Factor;
- 53) Mota, P. | Stent Genomico | Identificação e avaliação da população microbiana colonizadora de cateteres ureterais;
- 54) Nogueira-Silva, C. | A randomized, parallel-group, double-blind, double-dummy, active-controlled, multicenter study to assess the efficacy and safety of vilaprisan in subjects with uterine fibroids | Bayer;
- 55) Pereira, M. & Palha, J. | IODO MINHO: Estudo Impacto do momento de início da suplementação de iodo na função tiroideia e na iodúria na grávida e no recém-nascido, nas complicações obstétricas, fetais e neonatais e no desenvolvimento psicomotor da criança;
- 56) Pereira, V. | ClinicalPathway | Validação clínica de software de segmentação e interpretação automática da cinética segmentar do ventrículo esquerdo;
- 57) Pereira, V. | Magnetical | MAGNetic resonance Evaluation of Tafamidis Impact in Cardiac Amyloidosis;
- 58) Pereira, V. | RMC | Desenvolvimento e aplicação de algoritmos automáticos de interpretação de imagens de Ressonância Magnética Cardíaca;

59) Rolanda, C. | The effect of semaglutide in subjects with non-cirrhotic non-alcoholic steatohepatitis | Novo Nordisk.

Spin-Offs / Start-ups (active and/or launched in 2020)

1) BnmL

Bn'ML - Behavioral & Molecular Lab appears in 2012 as a spin-off of the Portuguese University of Minho (UMinho), in close association with the Life and Health Sciences Research Institute (ICVS - member of the PT Government ICVS/3B's – Associate Laboratory), from the School of Medicine of the UMinho. Bn'ML delivers customized behavioral and molecular preclinical analysis services for testing the potential of new therapeutic compounds, thus improving the drug development process in an early stage.

2) iCognitus

iCognitus is a Spin-Off company associated with the University of Minho in Portugal, one of the few medical schools in the world that have been awarded the ASPIRE certificate. Was founded in 2013 by leading experts in online assessment and is a software house developing a complete exam management solution, which delivers powerful and actionable data to assess learning outcomes and increase student learning, engagement, and retention. Our mission is to build the tools needed to make that your reality. From development, to support, to marketing—our focus is on creating the best products and helping our clients be as successful as possible.

3) iSurgical3D.

The iSurgical3D is a company founded in 2010, full dedicated to research, development and marketing of prosthetics and orthotics and other medical devices to use in patients based on 3D technologies. This project aimed to find an electro-mechanical platform based in 3D technologies for virtual modelation of implants for the correction of Pectus Excavatum by the Nuss procedure. The success of this project, whose intellectual property has now been

patented, was the basis of the spirit that led to the creation of iSurgical3D, Spin-Off of the UMinho. Currently, iSurgical3D is developing a strategy to extend its methodology to other human diseases, including correction of Pectus Carinatum, scoliosis and dental molding. The experience of its employees makes iSurgical3D a company specialized in advanced solutions and customized for surge.

4) IPLEXMED

IPLEXMED is a revolutionary genetic diagnostic platform funded in 2021, that combines lab quality personalized results with celerity, portability and mobile connectivity, that can be applied to a wide array of medical conditions, changing the pathway of diagnosis today. Our electronic Rapid Diagnostic Test (eRDT) - IPLEX-Resp - enables the detection of multiple infectious agents and their drug resistance profile, which is particularly relevant for chronic respiratory diseases (CRDs) monitoring, the 3rd leading cause of death worldwide. eRDT - IPLEX-Resp provides health care takers and patients with respiratory tools for fast and accurate diagnosis of respiratory infections, either at the clinic or at-home, while enabling digital data storage in a cloud, for real-time disease monitoring, diagnosis and personalized treatment by clinicians, determining the successful clinical outcome.

6 - Provide summary of other achievements that you consider relevant for the ICVS Report 2020

- 1) Almeida A. | Organized the 6th Post-Graduation “Control of Pain: psychological and clinical evaluation and intervention” included in the Porto Post-graduation Programmes of the Portuguese Institute for Psychology (INSPSIC);
- 2) Almeida O. | Initiation of projects on Global Mental Health in eastern Africa, focussing on stigma;
- 3) Fraga A. | Lab-PTBioNet | Technical Committee for Standardization, participation in the redaction of the document ISO 35001:2021 - Biological risk management for laboratories and other related organizations;

- 4) Monteiro P. | Invited Junior Member of the Portuguese National Academy of Sciences (Seminário de Jovens Cientistas) 2020-2023 (<http://www.acad-ciencias.pt/noticias/detalhe/120>),
- 5) Quialheiro A., Miranda A., Junior M., Santos N., Camargo A. & Correia-Neves M. | OITO Project manual: online technological inclusion workshops (IOS and Android versions). Portugal: University of Minho Repositorium. 2021. DOI: 10.21814/1822.74175;
- 6) Reis R. | Extraordinary Professor, Pan African Cancer Research Institute, University of Pretoria, South Africa;
- 7) Santos N. | Member of the Comissão de Ética para a Investigação em Ciências da Vida e da Saúde (CEICVS) da Universidade do Minho;
- 8) Xavier A., d'Orsi E., & Quialheiro A. | PRIDE: Promoting Independence in Dementia - Manual (versão português) | 2021 | ISBN 978-65-87206-60-8 (digital). <https://repositorio.ufsc.br/handle/123456789/220677>.



School of Medicine

ANNUAL REPORT

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ANNEX III

2CA Annual Report 2021

University of Minho

2CA-Braga Report

In order to develop clinical research 2CA-Braga, a partnership of the EMUM with the *Hospital de Braga* and the *Hospital Cuf Porto*, was created in 2012. 2CA-Braga aims to run clinical trials in collaboration with international industrial partners but also research-initiative clinical studies, to operate as an academic contract research organization (CRO), as a clinical research center and to promote clinical services. The 2CA-Braga combines a team of researchers, physicians and other health professionals, to which is associated a team of project managers, nurses, pharmacists, neuropsychologists, imaging technicians and study coordinators/monitors, ensuring a professional management of all the operations.

The 2CA-Braga clinical research encompasses: (i) trials (both industry- and investigator-driven); (ii) observational studies (both industry- and investigator-driven); (iii) translational research projects; (iv) clinical validation studies (for procedures or devices). During the year of 2021, a total of 247 clinical research projects were carried out in the 2CA-Braga, divided as follows by study type: 124 investigator-driven clinical studies (6 clinical trials, 105 observational studies and 13 medical device clinical studies) and 123 industry-driven clinical studies (102 clinical trials, 21 observational studies).

Finally, in 2021, we also distributed 50.000,00€ to fund 5 investigator-driven clinical studies, in the 9th edition of the 2CA grant call. The 8th edition of the training program in clinical research took place, with the participation of physicians, nurses, pharmacists, biomedical engineers, medical students



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ANNEX IV

B.ACIS Annual Report 2021

University of Minho

B.ACIS REPORT 2021

B.ACIS, the Center for Innovation in Health of the School of Medicine (EM) of Minho University (UMinho), was created with the objective of anchoring one of pillars of the mission of the UMinho and the EM: translating knowledge to the community.

B.ACIS, within the EM cluster, develops its activity in three main areas: i) INNOVATION, through the transfer of knowledge, Intellectual Property management and fostering and supporting the creation of startups, while promoting an University-Industry approach strategy; ii) PROVISION OF R&D SERVICES; and iii) ADVANCED SCIENTIFIC TRAINING, offering a distinctive international training program. Below are the most relevant activities developed by B.ACIS in each area:

- INNOVATION

Intellectual property (IP)

B.ACIS manages a portfolio of 30 active patents owned/co-owned by the UMinho/EM, and promotes their business and market development to achieve impact on society - through licensing, start-up creation and university-industry innovation projects.

In 2021, 2 newly scouted and identified technologies (including disclosure forms and early-stage assessment by B.ACIS) were patented as priority patents and 1 utility model and 2 new international (PCT) applications were submitted.

Additionally, feasibility studies were developed to assess the commercial viability of 3 technologies, as a result of a prize from 2CA. Other technologies were presented and marketed to companies, either through specific matching programmes, such as HITEC, or through direct contacts.

The International Advisory Board, previously established with world-class specialists in the biomedical and business areas, including as Jean-Frédéric Saunière, Jorge Santos da Silva and Pierre Chauvineau, has been involved in providing high-value feed-back to the most promising technologies/R&D results: 5 technologies were presented in 2 sessions: March 2021 and December 2021.

B.ACIS also contributed to the entrepreneurial ecosystem of EM. B.ACIS was engaged in two courses - "Being a Bio-entrepreneur" and "Innovation, Communication and Entrepreneurship in Medicine" - and organised 5 open sessions in collaboration with

IndieBio, HEI Health and HiSeedTech. In 2021, B.ACIS also supported 5 spin-off companies from the EM and 2 spin-ins.

- PROVISION OF R&D SERVICES

In 2021, maintaining the strategic focus on creating synergies with national and international system, through the ICVS/EM specialized technological platform, B.ACIS made available several specialized R&D services.

From an operational point of view, during 2021, animal models for R&D and validation services were provided to researchers and to biotech companies, including validation of commercial kits for the detection of SARS-CoV-2 by RT-PCR.

A set of proposals for the provision of services were also presented to entities of the national scientific and technological system and public and private companies. Also, B.ACIS organized four match-making actions, between researchers from the Cluster of the EM and national and international companies.

ADVANCED SCIENTIFIC TRAINING

In 2021, the Advanced Scientific Training Program, structured collaboratively by B.ACIS and the ICVS, organized 7 training events of various medical specialties and biomedicine research fields, for different levels of expertise:

- Capsule Endoscopy Training Program (12-14 may, 2021) – Gastroenterology – all levels
- Basic Laparoscopy for Residents (24-28 may, 2021) – All specialties – basic level
- Braga Otology Surgery Course (31 may – 4 june, 2021) – Otologic Surgery – all levels
- EMBO Single Cell Genomics (30 august - 5 september, 2021) – Molecular Biology – advanced level
- Avaliação e Orientação do Casal Infértil (11-12 june, 2021) – Fertility – all levels
- EMR and ESD workshop (9-10 september, 2021) – Gastroenterology – advanced level
- Basic Laparoscopy for Residents (22-24 november, 2021) – All specialties – basic level

In total, 204 trainees attended the courses, 34 of which were international attendees. Participants attributed an overall average score of 4.62/5, positively highlighting the infrastructures, organization and communication throughout each event.



School of Medicine

ANNUAL REPORT

2021–2022

ANNEX V

P5 Annual Report 2021

University of Minho

P5 Report 2021

In accordance to the vision of creating social value to the Cluster, the Clinical Digital Medical Center P5 (P5), a private non-profit association that results from a partnership between the School of Medicine of the UMinho and the Association Alumni Medicina, kept the effort to improve healthcare services using technology and digital tools. The mission of P5 to promote health and contribute to the improvement of healthcare response, to develop and implement solutions, and respective infrastructures, that meet the health needs of the Portuguese population, and to promote analysis and research on data relevant for health that is generated.

Last year (2021), P5 concentrated its efforts on improving its infrastructure, promoting health/clinical services, and strengthening the research unit. A unique repository for all information started to be developed, P5 mobile app was developed and all users of the P5 were contacted to be informed and to be able to update new functionalities. There was a clear growth of the clinical activities (e.g. the number of online consultations rose from 271 to 691. The number of requests for the service "Symptom Checker and Clinical Counseling" increased more than 10 times, as we continued with the cooperation protocols with the municipalities of Paredes de Coura and Guimarães and at the end of the year a collaboration with the municipality of Braga was initiated. User's satisfaction index was 4.83 (in a 0 to 5 scale). Additionally, we have developed and delivered 76 health education sessions in the municipalities of Paredes de Coura and Guimarães schools, senior centers, and nursing homes (overall, more than 2500 participants). As for chronic diseases management programs, in 2021 we finished the pilot study AMICOMED-P5, in collaboration with Hospital de Guimarães, and launched the service AcompanhaDOR, a digital pain management and counseling unit. We also applied to PRR, in a large consortium, with the project *Health from Portugal*.

In keeping with the prior collaboration with the Medical School of the University of Minho,^{1st} and 4th-year students of the Medical School with Integrated Master's Degree received a class on digital medicine and had the chance to do a brief internship at P5. During the internship they were introduced to the Symptom Evaluator application (user and professional perspectives) and had some clinical cases to solve with the healthcare professional; additionally, they had a public health challenge in the domain of Digital Era, a case presentation session, and an overall discussion. The P5 team also contributed to the evaluation of Option Projects under the scope of health promotion in a Digital Era.



School of Medicine

ANNUAL REPORT

2021–2022

ANNEX VI

Snapshot Medical Degree-Assessment of the Academic Year 2021-2022

University of Minho



University of Minho
School of Medicine

INTEGRATED MASTER IN MEDICINE

2022 – A SNAPSHOT

EVALUATION OF THE ACADEMIC YEAR 2021-2022

UNIVERSITY OF MINHO
School of Medicine
Medical Education Unit

FOREWORD

This was an exciting and challenging year at the School of Medicine, University of Minho! As planned, we moved forward with the implementation of MinhoMD (the newly revised curriculum) in the 2nd and 5th curricular years of the program. In the 2nd year, the highlight was the introduction of the curricular unit (CU) “Complementary Paths in Medicine”. For three months students enrolled in 1-month courses in different fields of knowledge spanning from arts, entrepreneurship, lifestyle, and biomedicine. In the 5th year, the highlight goes to the first edition of the CU “CPAP 4 – Clinical Practice and Academic Profile 4”. The organization of this CU was designed using the model “four components for Instructional design” and had a high component of simulation, team-based learning, and a different program of assessment. The student's feedback was excellent, and it may be used as a model for other CU.

This was also the last year in which we still ran the legacy curriculum in the 3rd and 6th curricular years. The faculty and staff were able to keep up with the standards as students’ performance and students' perception of the CUs were very similar when compared to previous years. It was a fantastic farewell to a curriculum that served us well over the last 20 years.

On a more technical note, this year we have made amendments to the appreciation questionnaires filled by the students to rate the CU, faculty, and supervisors. This new version of the questionnaires is much shorter and was implemented to increase the response rate by the students.

Finally, this year was also marked by the return of onsite activities and most importantly by the normalization of the clinical rotations at the Hospitals and Health Care Centers.

The next school year, that now starts, will bring new challenges as MinhoMD will be fully implemented and we will surely have many lessons to learn and share always having in mind the mission of our school: to improve healthcare through training and knowledge generation.

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Graduate entry

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1.ADMISSIONS

In 2021/2022, there were 121 admitted students through the National Admission Process in the 1st phase, although there were 1283 applicants, which means that there were 10.7 applicants/available place. Of these, 110 were admitted through the general contingent and 11 through other contingents (islands/immigrants/ with disabilities/ autonomous available place (“vaga autónoma”). There were also 2 students admitted in the 3rd phase, through the National Admission Process, due to two students that cancelled their registration. Besides the National Admission Process, there were 9 students admitted through a Special Admission Regime, being 1 of them a high competition athlete and 8 are from Portuguese Speaking African countries. Lastly, there were 18 students admitted through a Special Admission Process, with 223 applicants (12.39 applicants/available place). The students admitted through this process, are students who already have another degree and follow a different track – the alternative track.

Regarding to the original track, the students are predominantly women (89 women, 76%; 28 men, 24%), aged between 17 to 23 ($M = 18.01$; $SD = 0.79$). Most of them are originally from Braga ($n = 81$, 70%), 13% are from Porto ($n = 15$) and 17% are from other districts ($n = 19$). Therefore, 38% of the students had to leave their families homes ($n = 53$). The majority of the students studied in public high schools ($n = 86$, 74%) and 9% ($n = 10$) of them had already enrolled in higher education previously. The factors that most influenced students to choose the School of Medicine of the University of Minho were the quality of learning/teaching process (82%), the geographical proximity (65%) and the teaching/ learning methodologies (64%). The School of Medicine of the University of Minho was the first option to 82% of the National Admission Process students. Admissions grade point averages of the general contingent varied from 177.00 to 198.70 ($M = 191.02$, $SD = 3.23$). For the other contingents, the admissions grade point averages varied from 154.70 to 183.50 ($M = 169.05$, $SD = 8.19$).

In respect of the alternative track, they are also mostly women (13 women, 76.5%; 4 men, 23.5%), aged between 22 to 47 ($M = 28.83$, $SD = 7.41$). The majority of the alternative track students are from Braga ($n = 11$, 61%), 11% ($n = 2$) from Porto and 28% ($n = 5$) from other districts. Thus, the majority of the students didn't have to leave their families homes (56%, $n = 10$). Such as the original track students, most of these students studied in public high schools (78%, $n = 14$). As said before, the alternative track students already have a previous degree, being that 47% ($n = 8$) of them have finished a master's degree, 41% ($n = 7$) “licenciatura” and 12% ($n = 2$) have a PhD degree. The scientific areas studied in their first degree are Biomedical Sciences (19%, $n = 3$), Nutrition Sciences (13%, $n = 2$), Applied Biology (6%, $n = 1$), Molecular Biomedicine (6%, $n = 1$), Biochemistry (6%, $n = 1$), Health Sciences (6%, $n = 1$), Aquatic Sciences (6%, $n = 1$), Nursing (6%, $n = 1$), Computer Science and Engineering (6%, $n = 1$), Clinical physiology (6%, $n = 1$), Math Teaching (6%, $n = 1$), Dental medicine (6%, $n = 1$), and Music (6%, $n = 1$). Some of these students also have

a second degree and the scientific areas of these are Biochemistry ($n = 2$, 15%), Applied Biochemistry ($n = 1$, 8%), Biomedical Sciences ($n = 1$, 8%), Nutrition Sciences ($n = 1$, 17%), Health Sciences ($n = 1$, 8%), Pharmaceutical sciences ($n = 1$, 8%), Palliative care – Master ($n = 1$, 8%), Music Teaching – Master ($n = 1$, 8%), Molecular Medicine – Master ($n = 1$, 8%), Molecular Genetics – Master ($n = 1$, 8%) and Clinical Nutrition – Master ($n = 1$, 8%). Most of the students are satisfied with their previous degree ($n = 9$, 53%) and it was their first option ($n = 7$, 41%) or their second option ($n = 7$, 41%) in their previous application. The medical degree was the first option to 41% ($n = 10$) of these students in their first higher education application. In this academic year, the medical degree of the School of Medicine of the University of Minho was the first option to all the students that answered the question (100%, $n = 13$). The reasons to choose this school were the quality of learning/teaching process (100%, $n = 18$), the prestige of the degree (89%, $n = 16$), the teaching/ learning methodologies (83%, $n = 15$) and the curriculum of the degree (72%, $n = 13$).

2.TEACHING AND LEARNING

2.1 Academic Performance

Typically, an individual student final academic performance combines performance in written assessments, skill examinations and attitudinal observations, defined in the corresponding assessment methodologies.

According to the University regulations, failing students are classified in two categories: i. the non-attendants who do not comply to attendance criteria; ii. Academic failures, who achieve below 50% of the maximum GPA (20 points).

The overall success rates were very high. The overall mean was 95% with a standard deviation of 6%. There was a general trend of increase in successful performance from the initial to the third year, and a slight decrease at the fourth year, followed by an increase to the last year of the degree. The smallest and largest success rates were year 1 (87%) and 3 (99%). This seems to reflect the progressive adaptation of the students to the schools' teaching and learning approaches, but also their adaptation to the newly revised curriculum at four and five years of the degree.

Regarding to the original track, "Fundamentals of Medicine 2" was the course with the highest student failure rates (18%), and in respect of the alternative track the course with highest failure rates was "Foundations of Medicine 1" (10%).

2.2 Students evaluations of curricular units, teachers and tutors/services

Student evaluations (SE) were obtained through a systematic process using questionnaires adapted to the EM-UMinho, approved by the School's Scientific Council in 2021. The questionnaires are administered by the Medical Education Unit (MEU). The questionnaires (Net Promote Score – NPS*) were applied through an online platform. Within the 2 weeks following the end of a curricular unit or when the final classifications were published, students received an e-mail with a link to the questionnaires. They could respond on any mobile device and confidentiality was guaranteed. The questionnaires were in Portuguese therefore translations were developed for the purpose of inclusion in the appendix of this document.

The overall mean of response rate was 38% with a standard deviation of 13%. The highest differences in the response rates compared to last year were observed in the 3rd and 6th (dropped 34% and 24%, respectively).

Curricular Units were generally highly appreciated. There were 17 curricular units (65%) considered globally “excellent” by equal or over 75% of the respondents. Practice and Academic Profile 2 was the curricular unit that decreased more percentile points relatively to the previous academic year (- 33%). Practice and Academic Profile 1, Fundamentals of Medicine 1, Foundations of Medicine 1 and Introduction to Training in Medicine increased at least 13 points in the average of students that globally considered these units as excellent. Foundations of Medicine 2 was the curricular unit that increased more percentile points relatively to the previous academic year (36%).

* For 2021/2022, the promoter responses were considered from 6 to 10 (on a 0 -10 scale).

APPENDIX

INFORMATION REFERRED IN THE MAIN DOCUMENT

The Snapshot's Appendix presents the corresponding academic year's final scores distributions and the results of student evaluations, for the curricular units of the undergraduate medical program of the EM-UMinho. A retrospective comparative socio-demographical analysis for the last 5 years is also included. All academic performance data originate from the Minho's Longitudinal Educational Study (ELEMUM). The performance boxplots in this appendix are computed from the ELEMUM database.

As to the student curricular units' evaluations, this appendix presents the instruments, the process and the results for the present and former years. The process was designed in 2006 by the Scientific Council of EM-UMinho and is under the coordination of the Medical Education Unit (MEU).

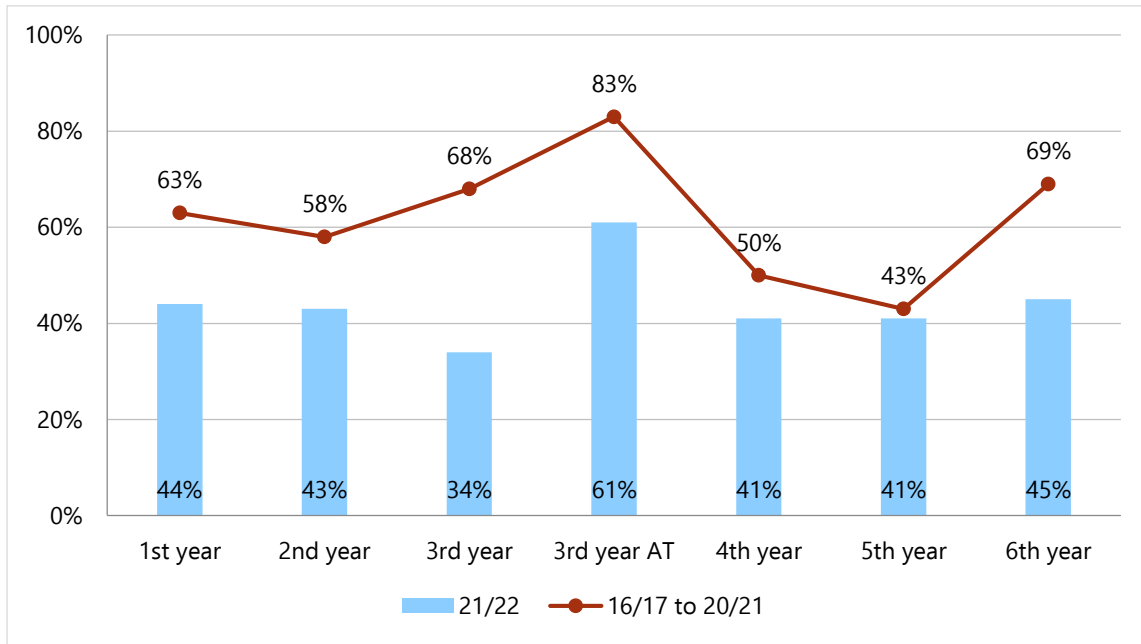
In addition, the appendix includes descriptive elements about the socio-demography of this year's entering class and a comparison with previous cohorts. The information is gathered through surveys that students respond to voluntarily during their first week in the medical school. Informed consent is collected to collate the data to the Minho's Longitudinal Educational Study (ELEMUM) of EM-UMinho.

STUDENT EVALUATIONS (SE)

There are specific questions used for distinct purposes:

1. "Overall Evaluation": of the general dimensions that all the curricular units should abide to; each student fills one questionnaire/curricular unit; includes the same 3 items (except for specific courses where some items do not apply);
2. "Evaluation of Academic Faculty": on individual SM-UM's faculty of all curricular units; each student fills one form/faculty - the global scores presented in this snapshot are computed for every faculty of the corresponding curricular unit and the individual scores are communicated to each faculty and the corresponding unit coordinator; includes 1 item;
3. "Evaluation of Clinical Tutors/Services": on individual clinical tutors in the affiliated Health Care Institutions, applied exclusively to courses with clinical attachments (from the 3rd to the 6th year); each student fills one form/faculty - the global scores presented in this snapshot are computed for every faculty of the corresponding curricular unit and the individual scores are communicated the unit supervisor; includes 2 items;
4. "Evaluation of Option Projects": used on all the elective curricular units of the medical degree; includes 1 item.

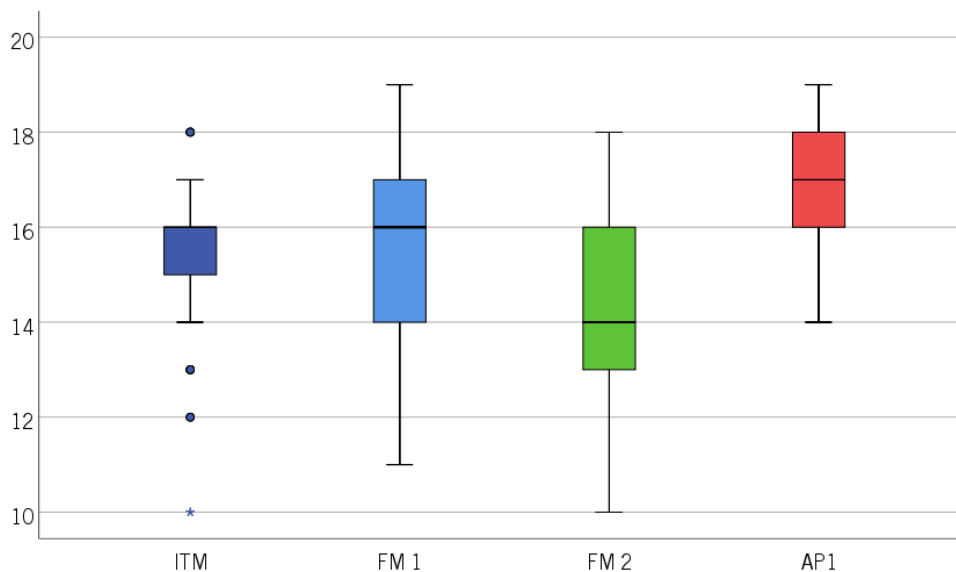
Student evaluations: retrospective average response rates by curricular year



1st year

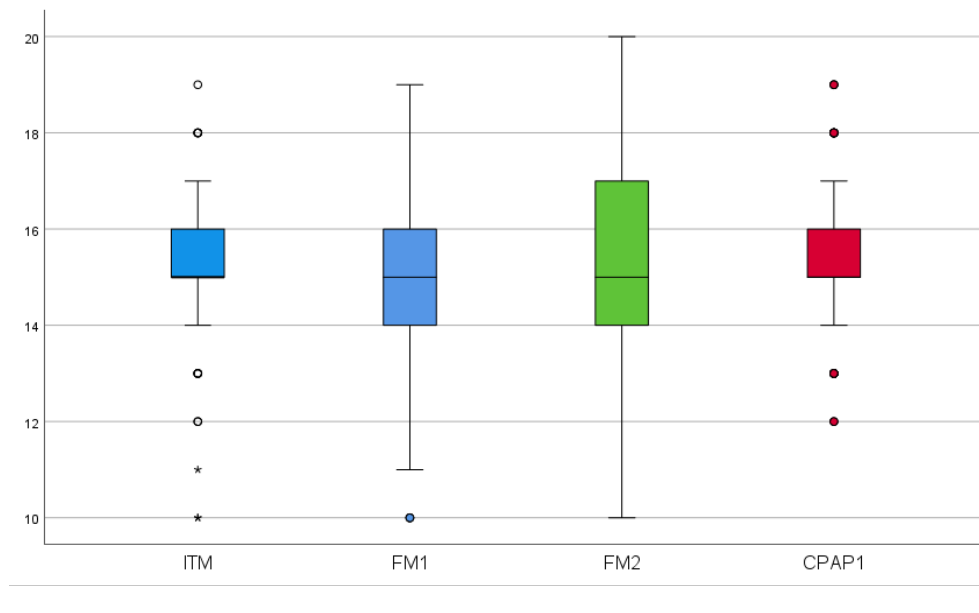
Distribution of Student Scores (*)

2020-2021



NA	3 (2%)	3 (2%)	9 (7%)	11 (8%)
AF	3 (2%)	13 (9%)	9 (7%)	1 (1%)

2021-2022



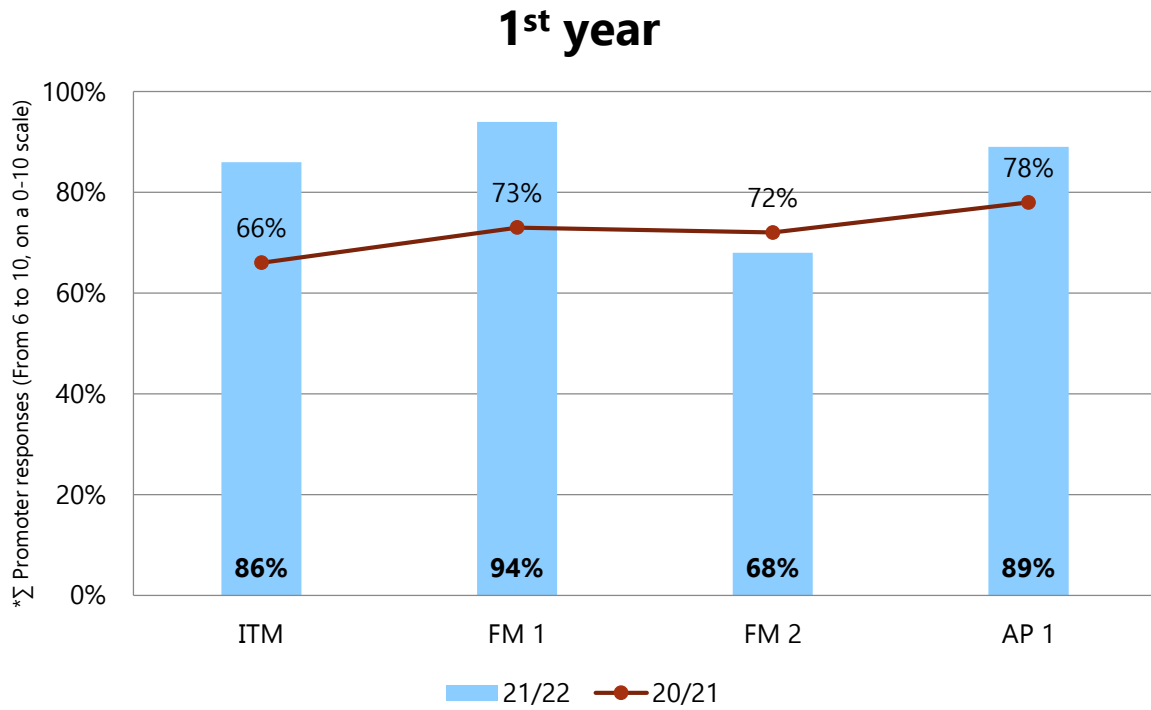
NA	1 (1%)	9 (6%)	26 (18%)	6 (8%)
AF	6 (4%)	18 (12%)	10 (7%)	0 (0%)

Legend

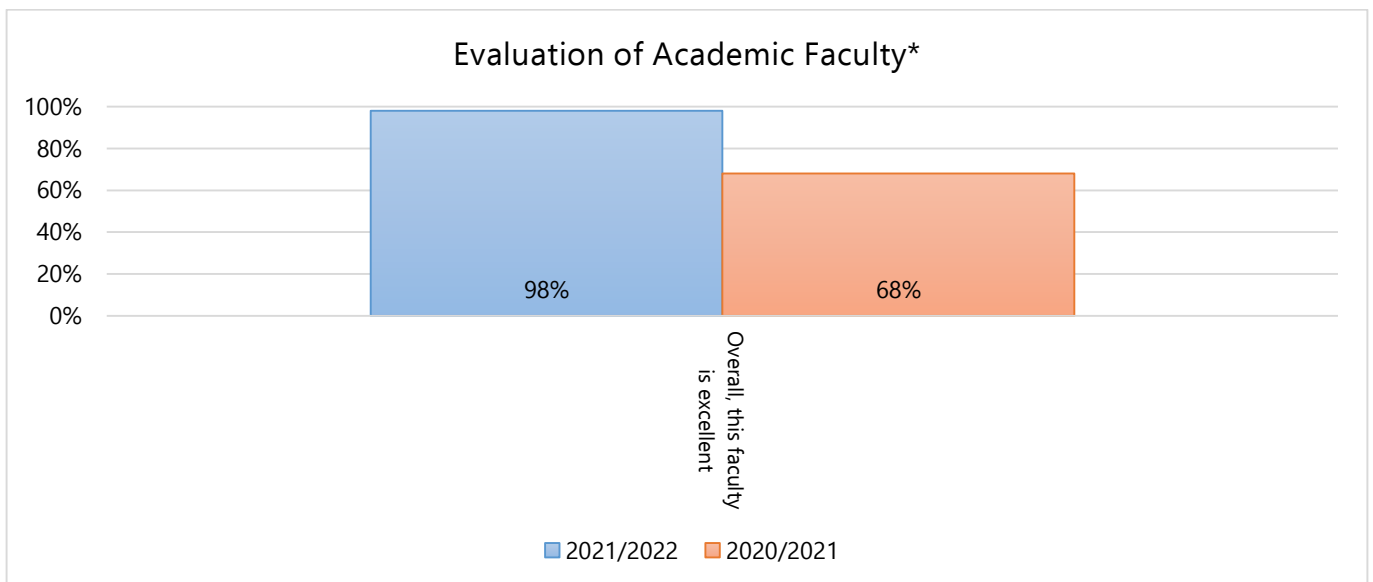
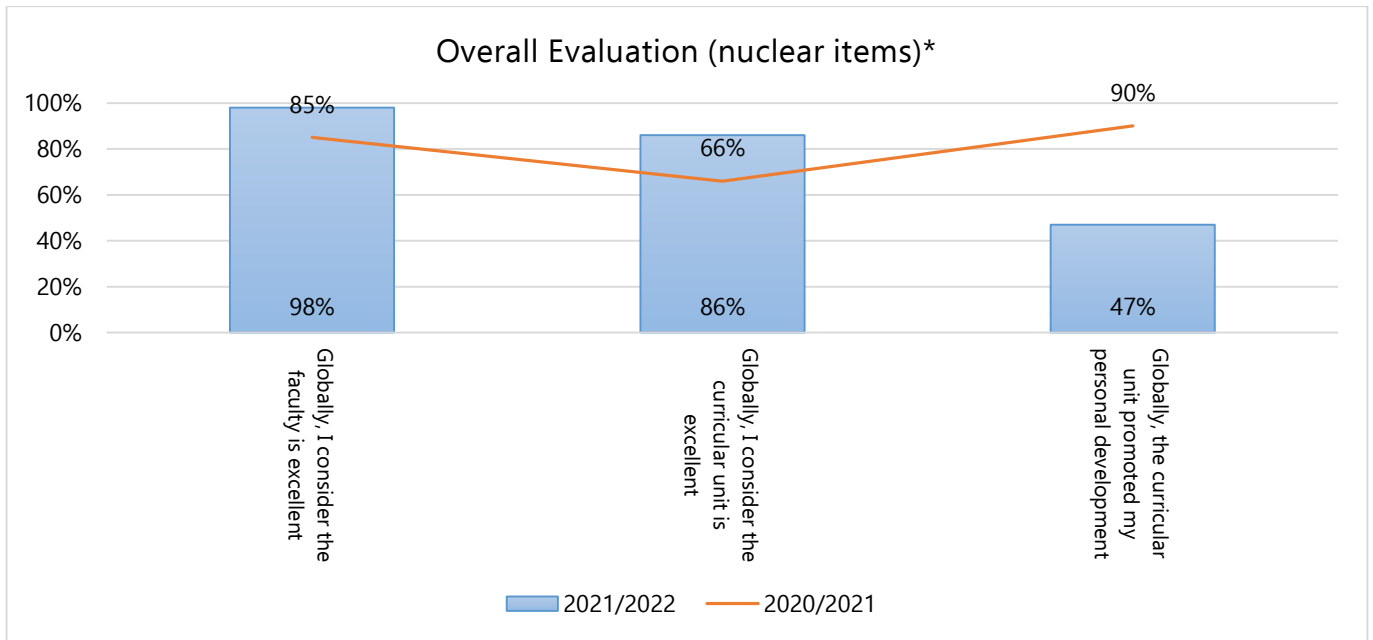
ITM – Introduction to Training in Medicine
 FM 1 – Fundamentals of Medicina 1
 FM 2 – Fundamentals of Medicina 2
 CPAP 1 – Clinical Practice and Academic Profile 1

(*) Output provided by the database of EM-UMinho Longitudinal Study
 (**) Non-attendants (NA) / (***) Academic failures (AF)

Student responses to the item “Globally, I consider the curricular unit is excellent”

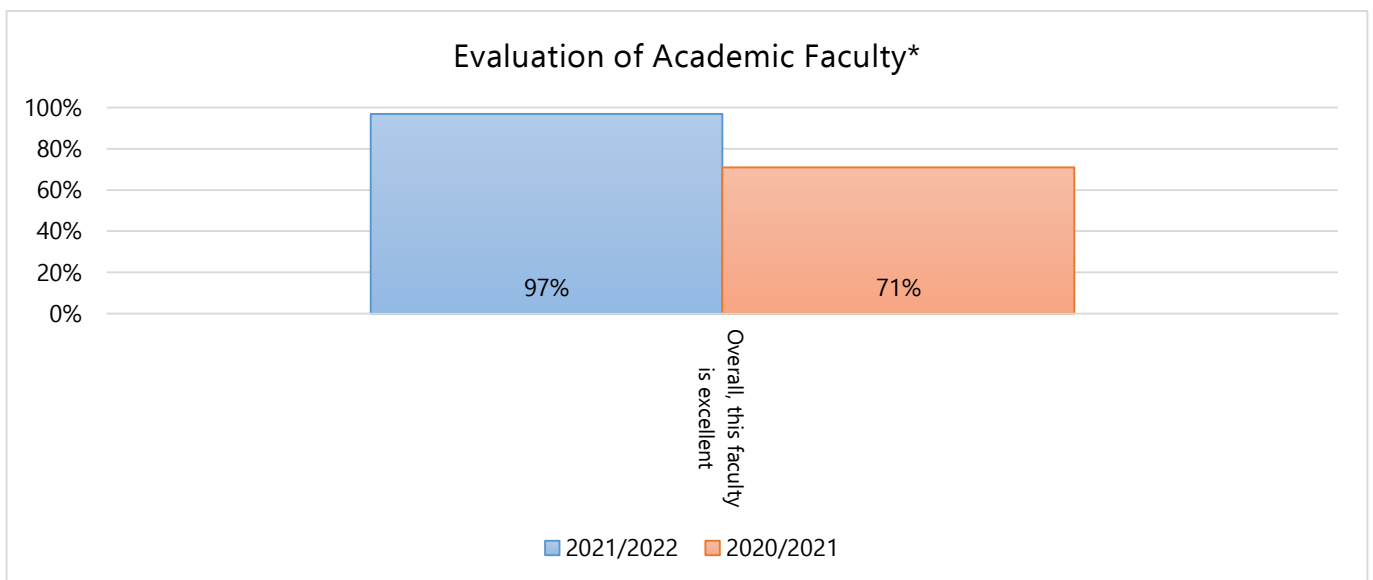
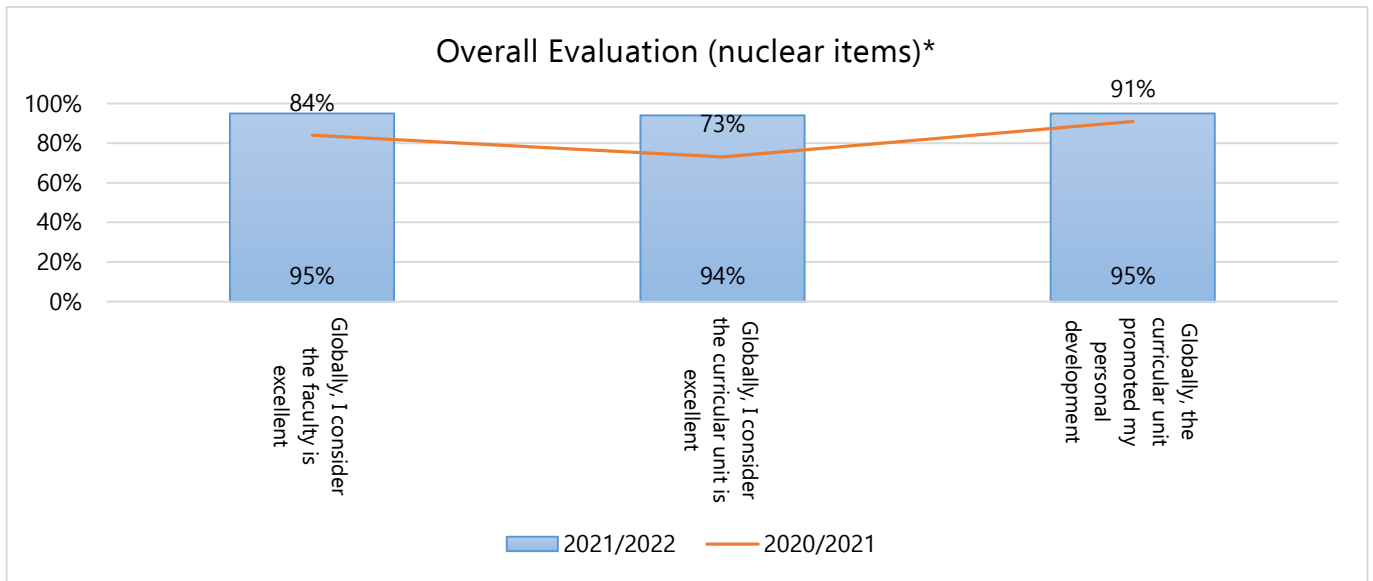


Curricular Unit: Introduction to Training in Medicine



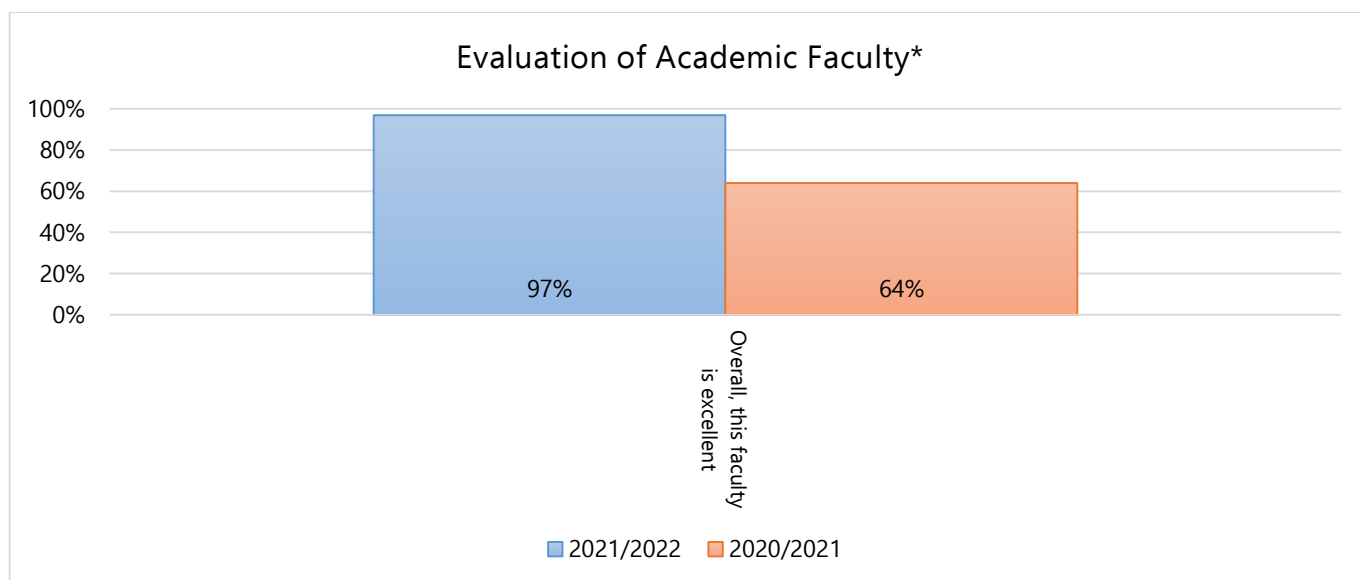
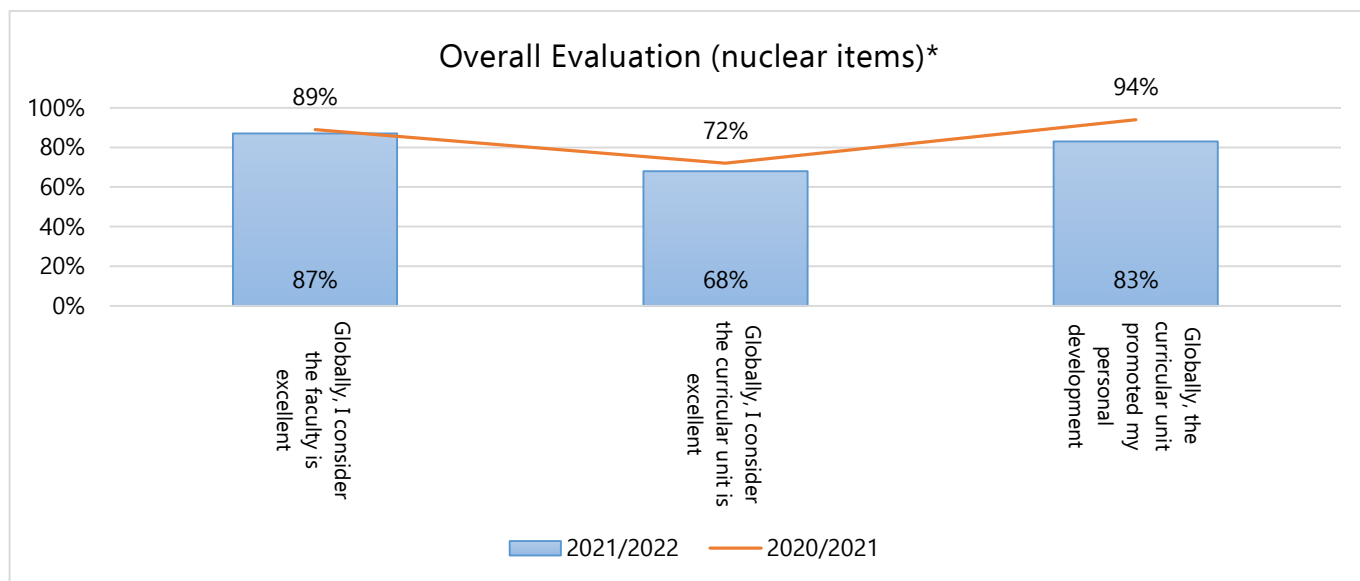
* \sum Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: **Fundamentals of Medicine 1**



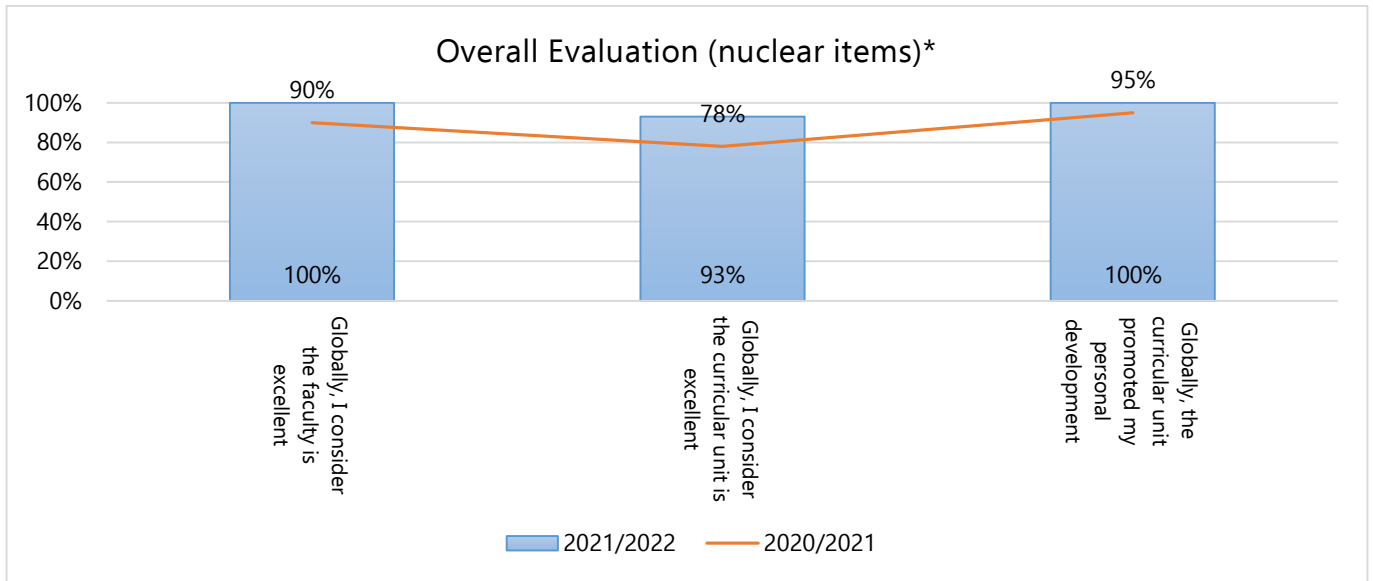
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Fundamentals of Medicine 2



* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Academic Profile 1

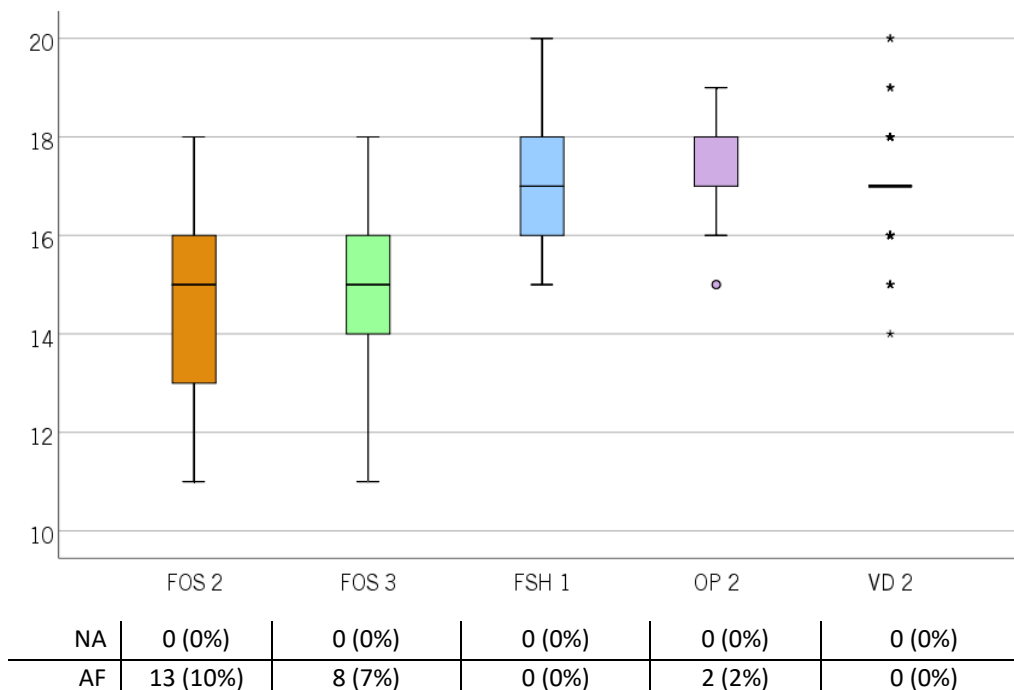


* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

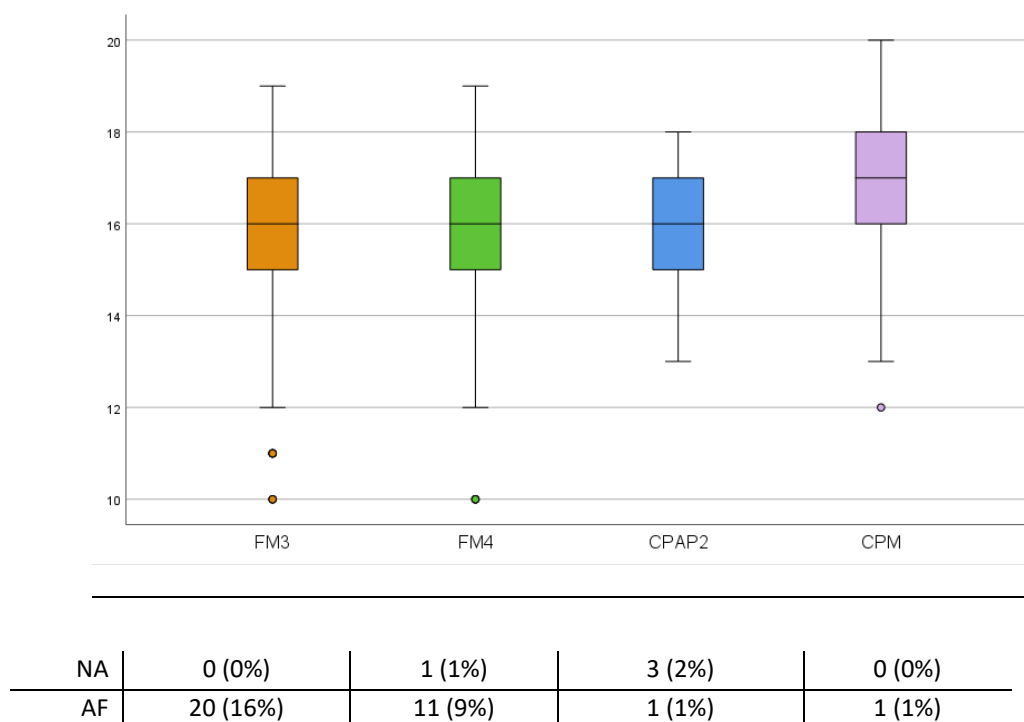
2nd year

Distribution of Student Scores (*)

2020-2021



2021-2022



Legend

FOS 2 – Functional and Organic Systems 2

FOS 3 – Functional and Organic Systems 3

FSH 1 – Family, Society and Health 1

OP 2 – Option Project 2

VD 2 – Vertical Domains 2

FM 3 – Fundamentals of Medicina 3

FM 4 – Fundamentals of Medicina 4

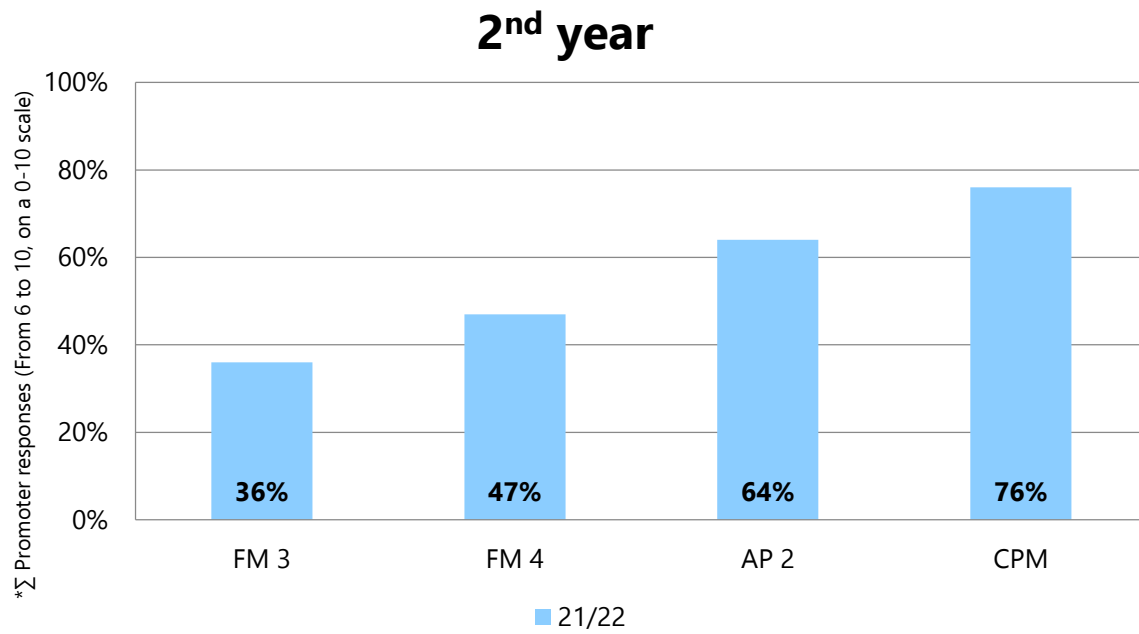
CPAP 2 – Clinical Practice and Academic Profile 2

CPM – Complementary Paths in Medicine

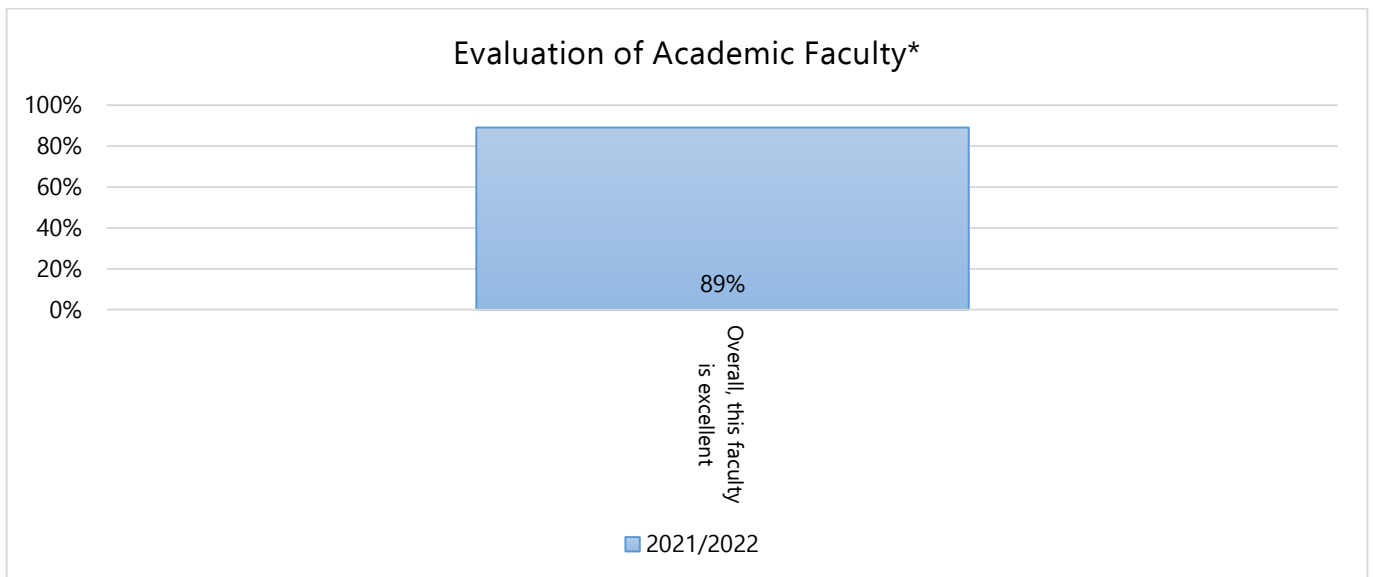
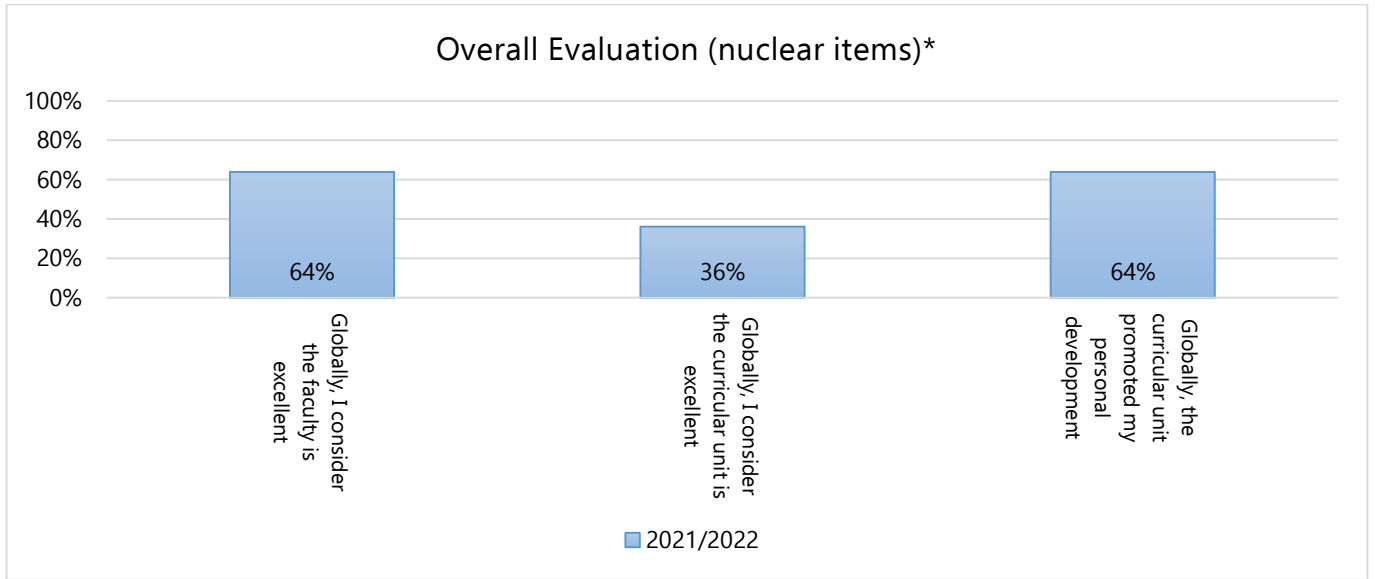
(*) Output provided by the database of EM-UMinho Longitudinal Study

(**) Non-attendants (NA) / (***) Academic failures (AF)

Student responses to the item “Globally, I consider the curricular unit is excellent “

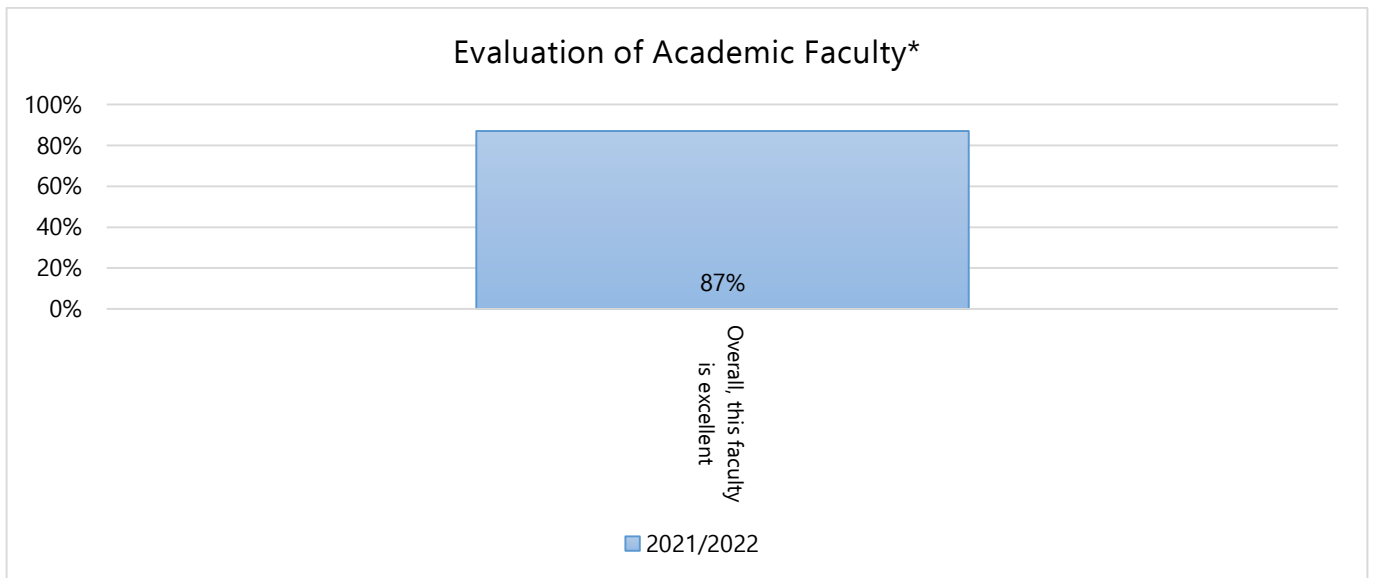
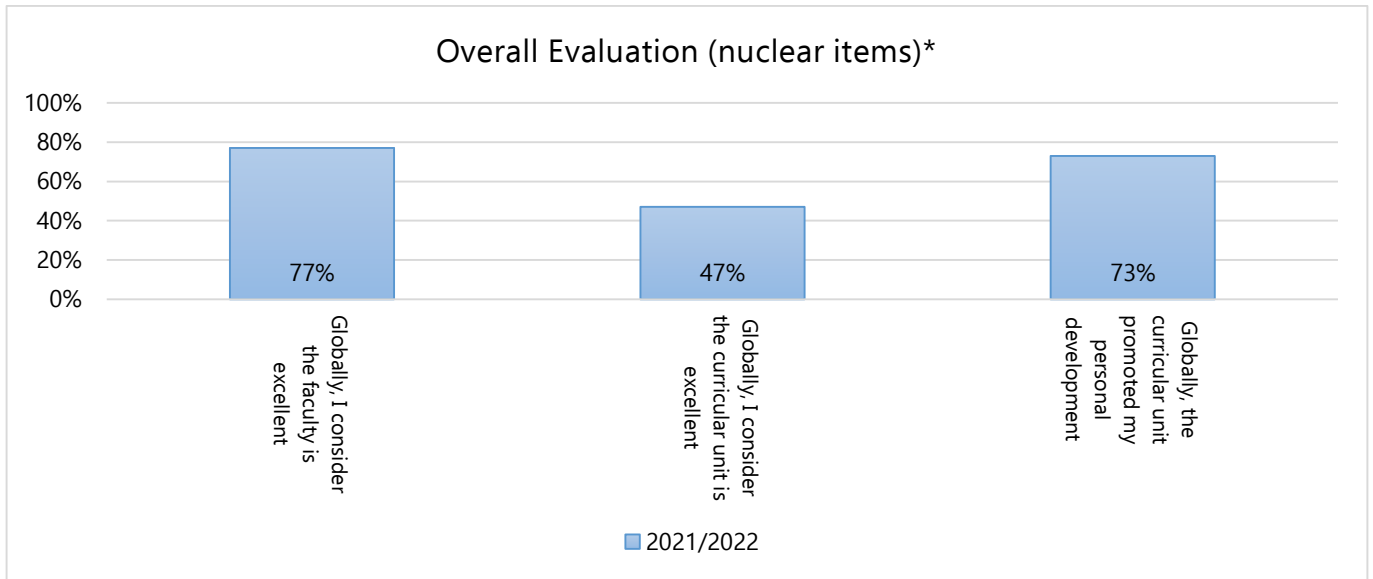


Curricular Unit: **Fundamentals of Medicine 3**



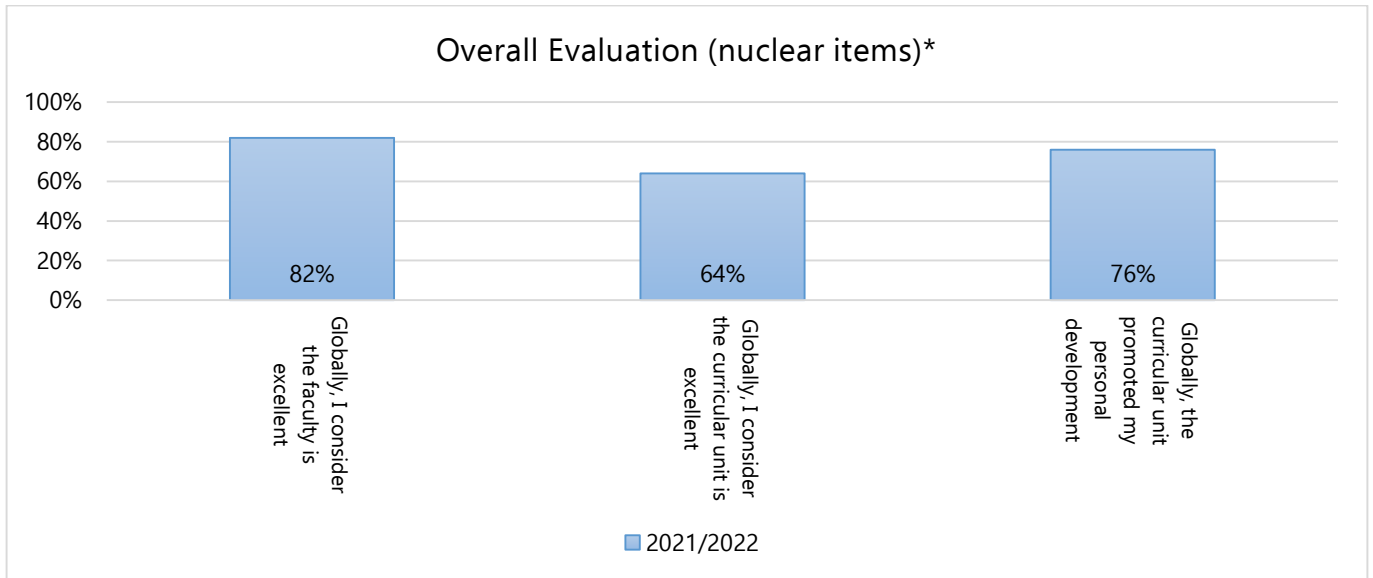
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Fundamentals of Medicine 4



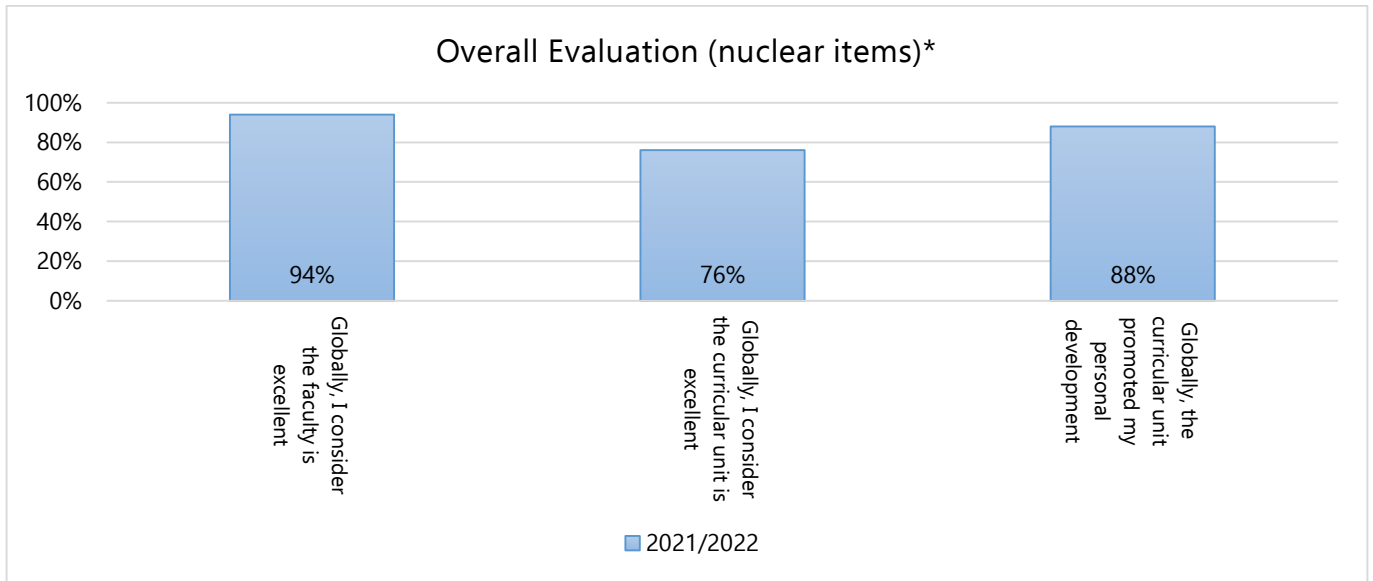
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Academic Profile 2



* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: **Complementary paths in medicine**

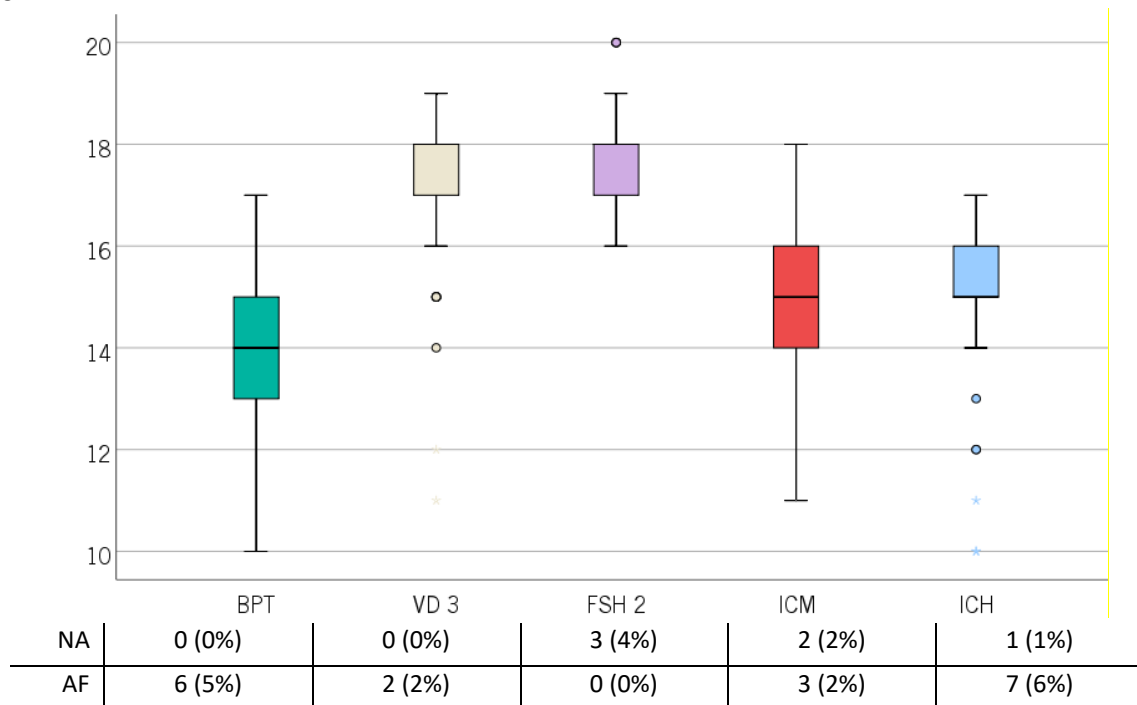


* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

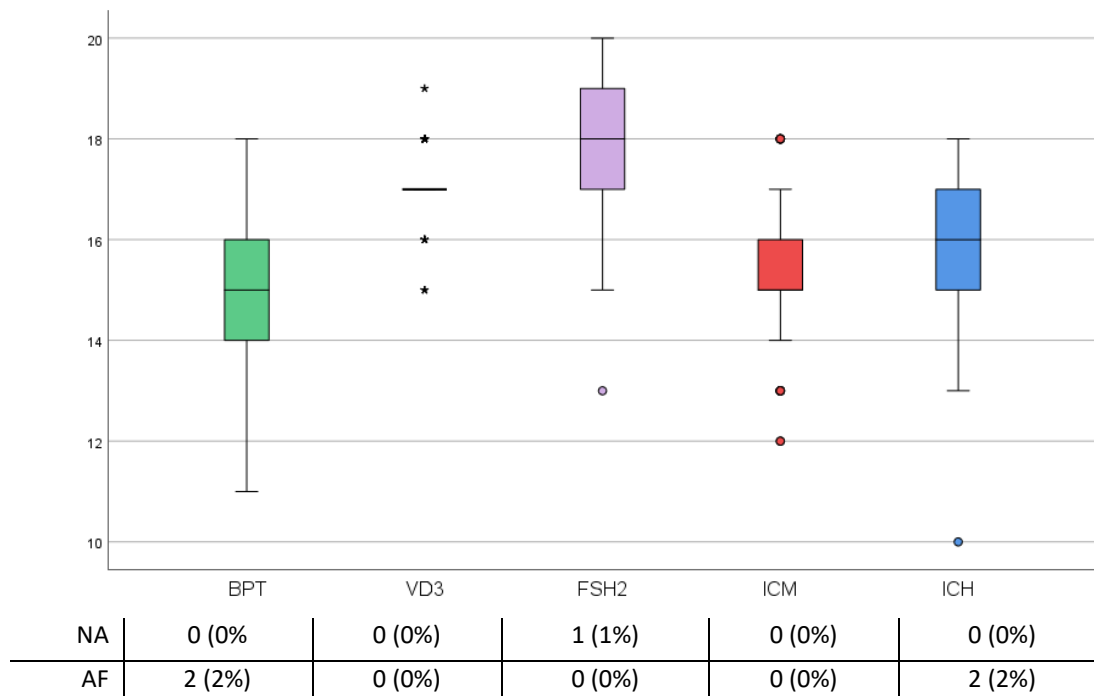
3th year

Distribution of Student Scores (*)

2020-2021



2021-2022



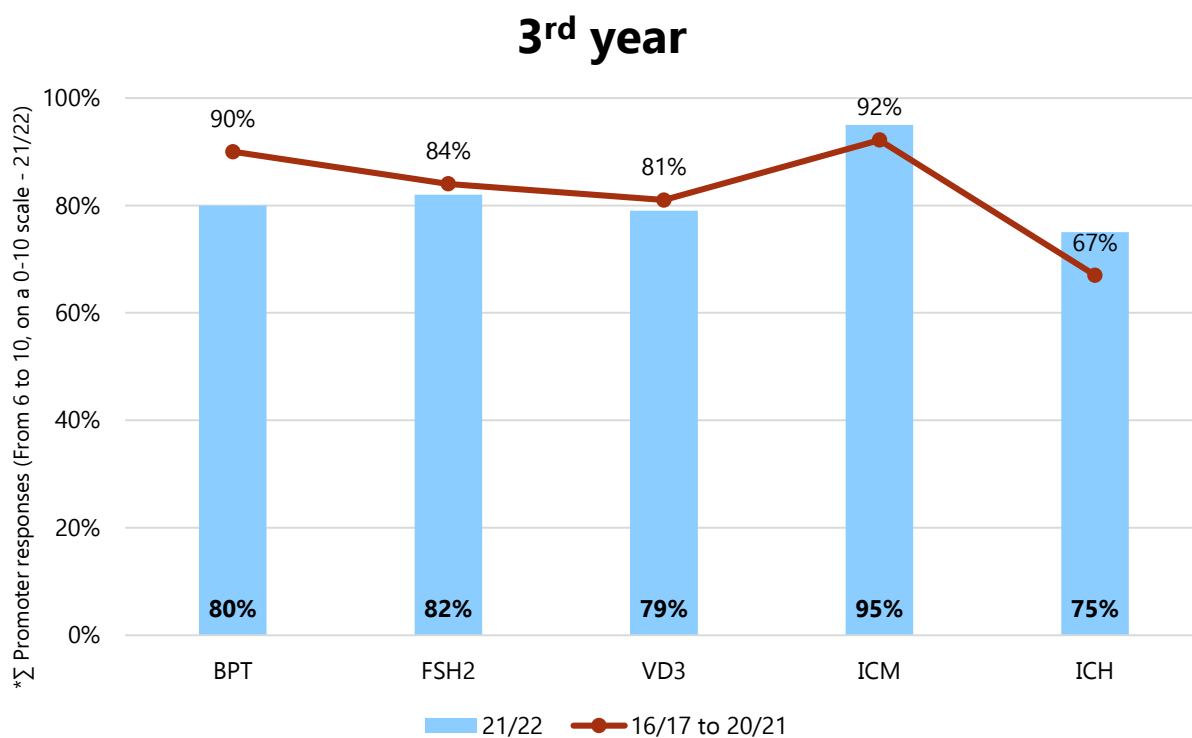
Legend

BPT – Biopathology and Introduction to Therapeutics
 FSH2 – Family, Society and Health 2
 ICH – Introduction to Community Health
 ICM – Introduction to Clinical Medicine
 VD3 – Vertical Domains 3

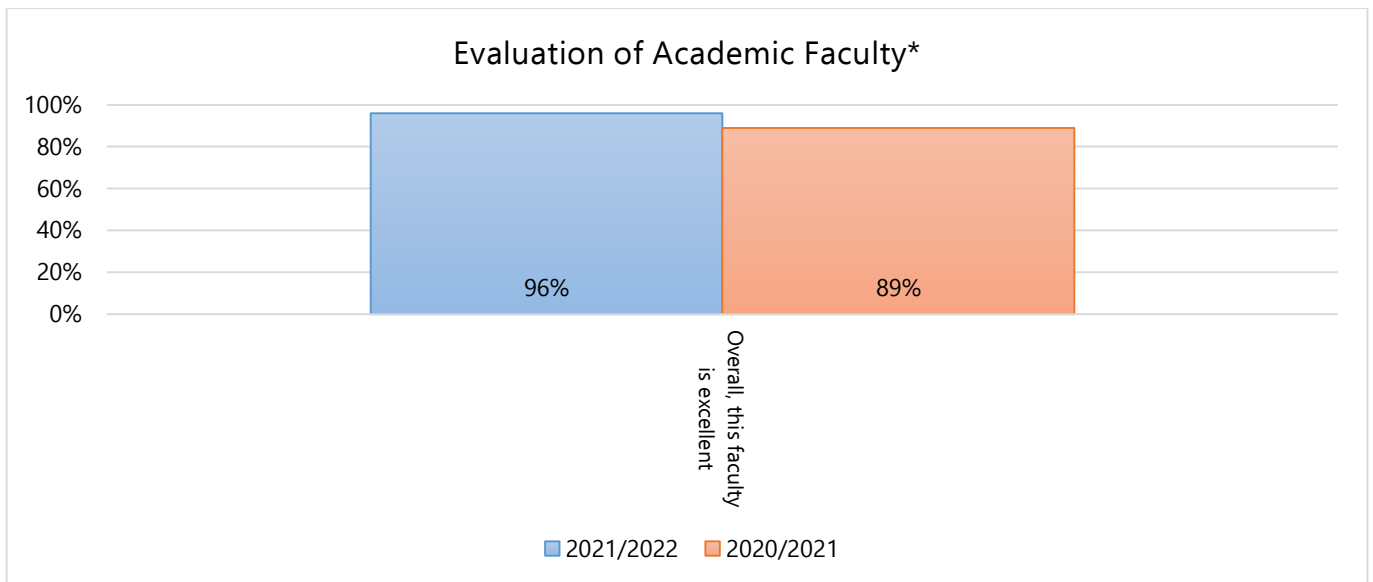
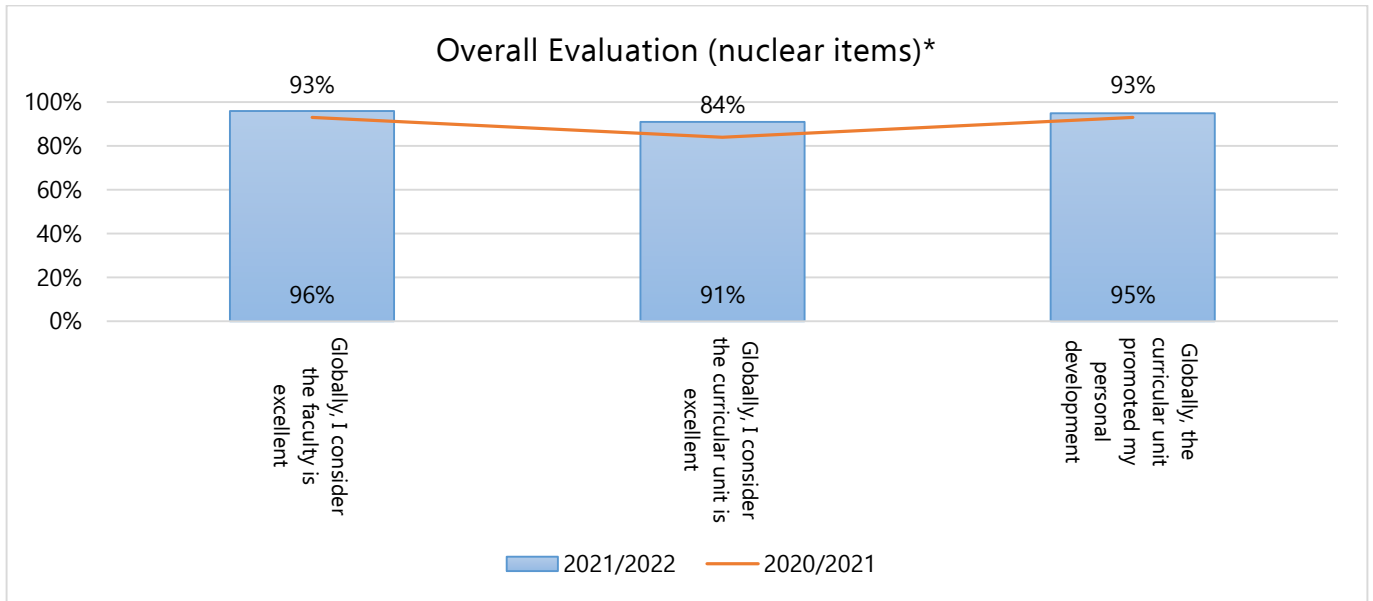
(*) Output provided by the database of EM-UMinho Longitudinal Study

(**) Non-attendants (NA) / (***) Academic failures (AF)

Student responses to the item “Globally, I consider the curricular unit is excellent”

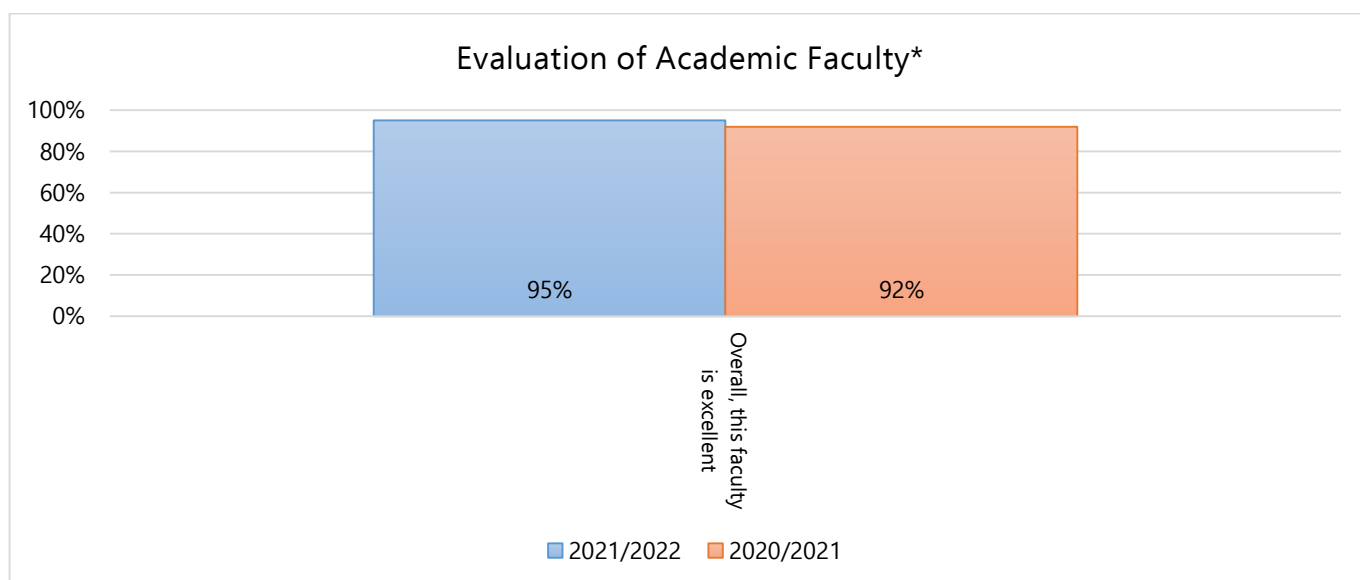
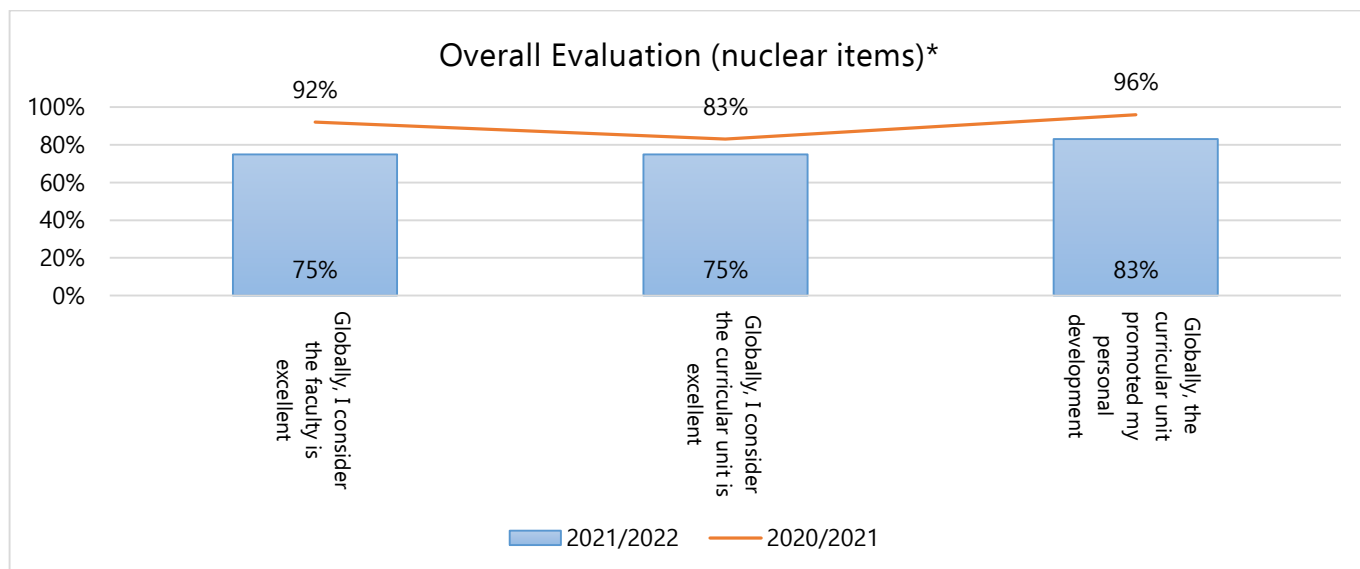


Curricular Unit: **Biopathology and Introduction to Therapeutics**



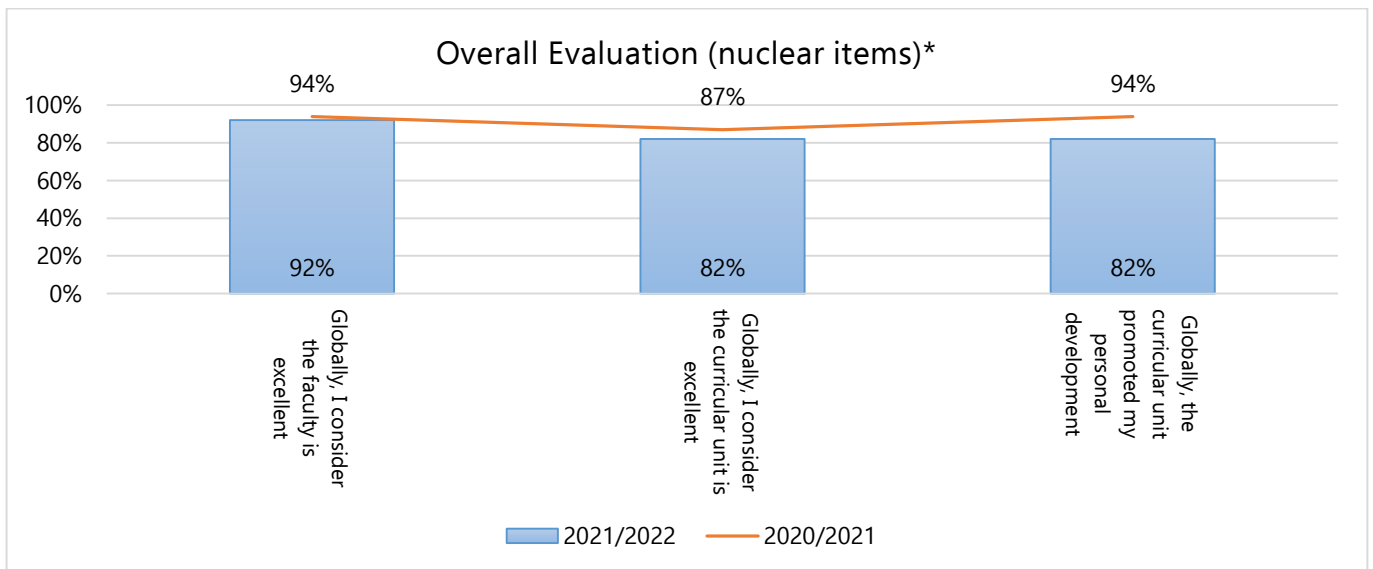
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Introduction to Community Health

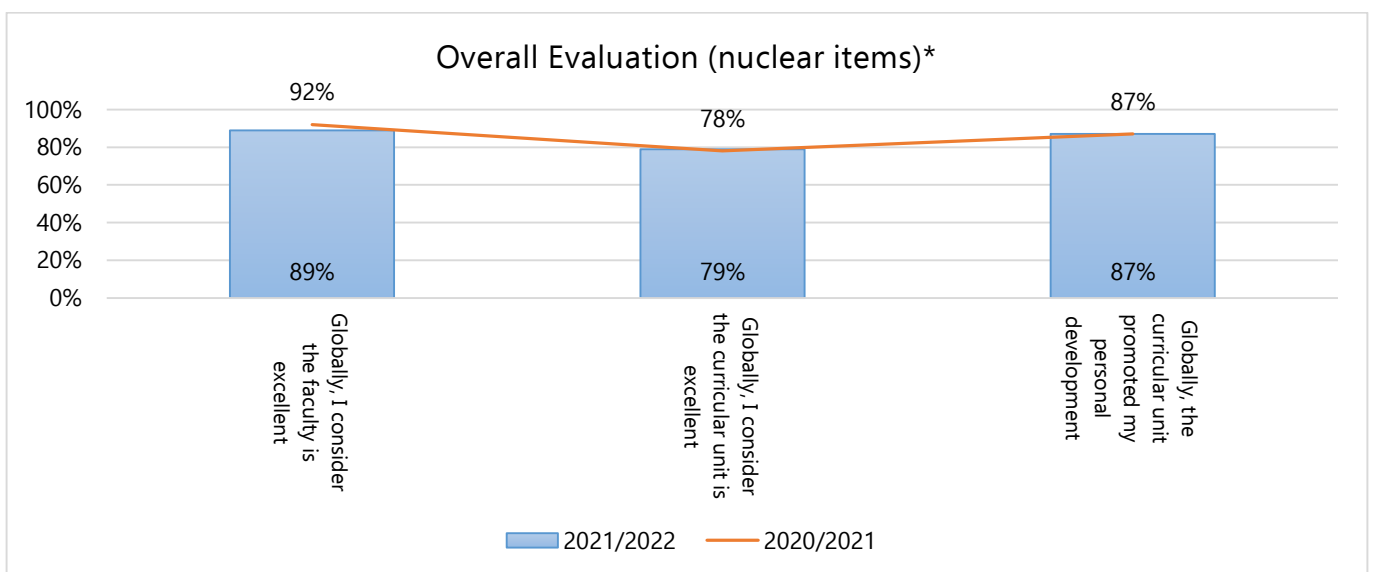


*Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Family, Society and Health 2

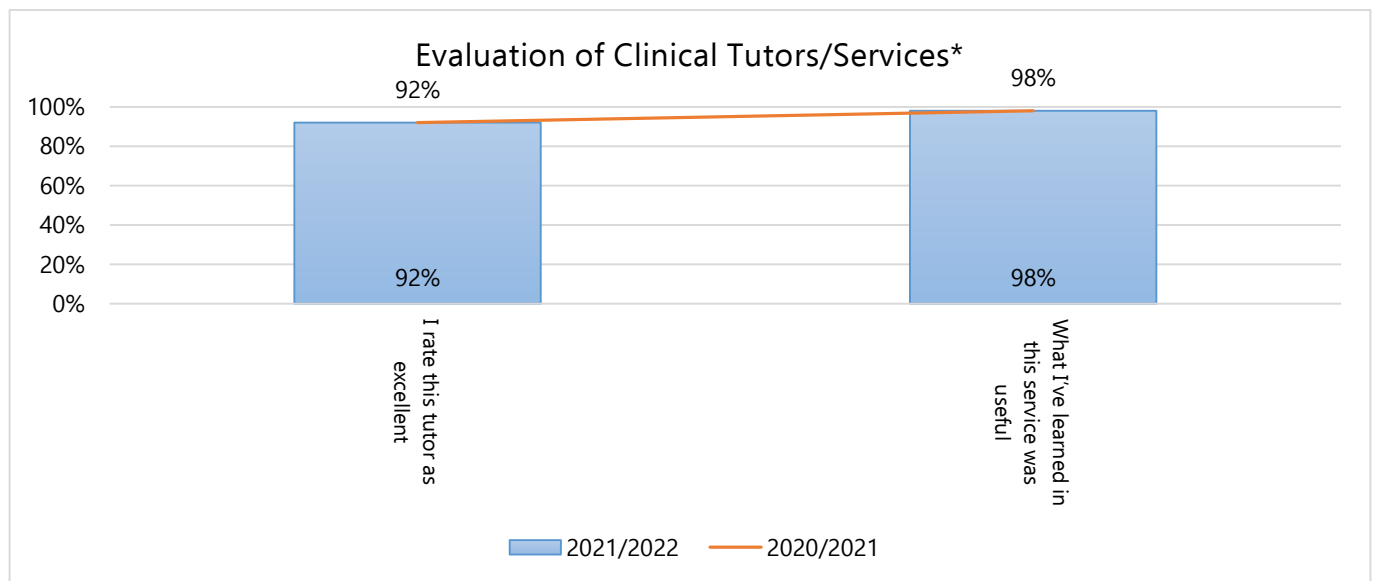
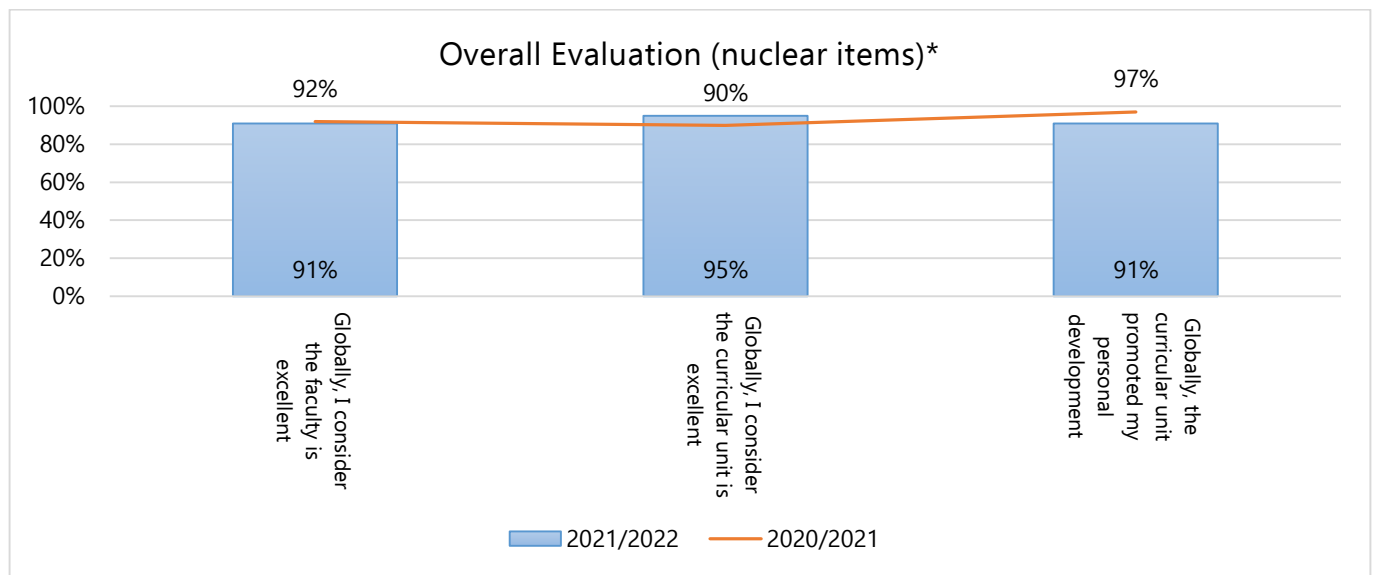


Curricular Unit: Vertical Domains 3



* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Introduction to Clinical Medicine

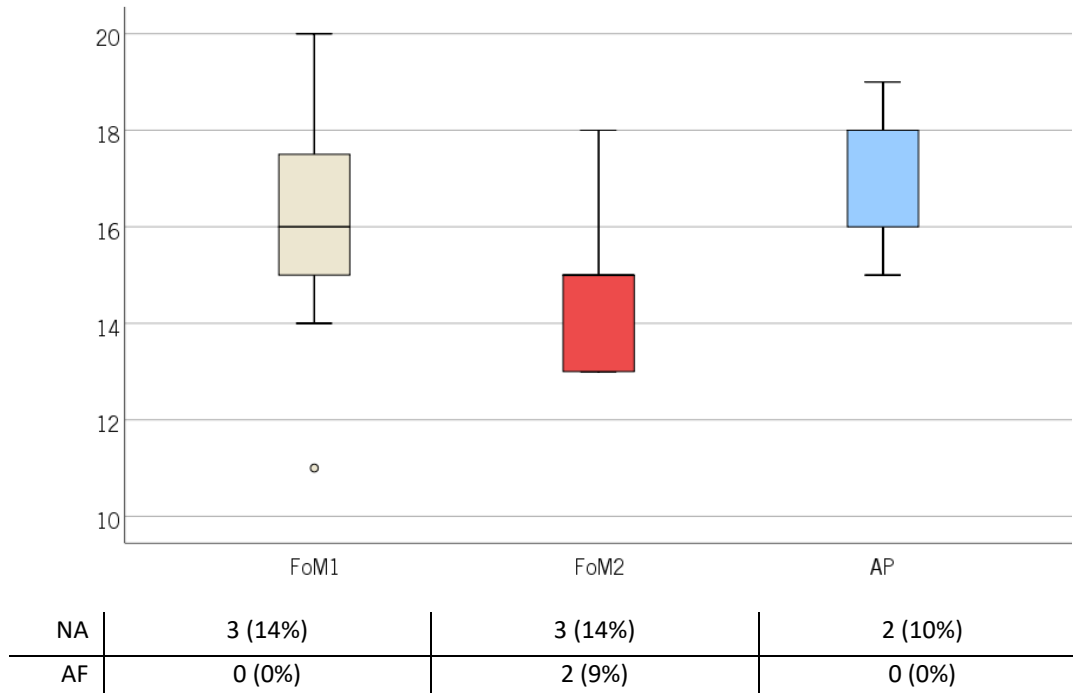


* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

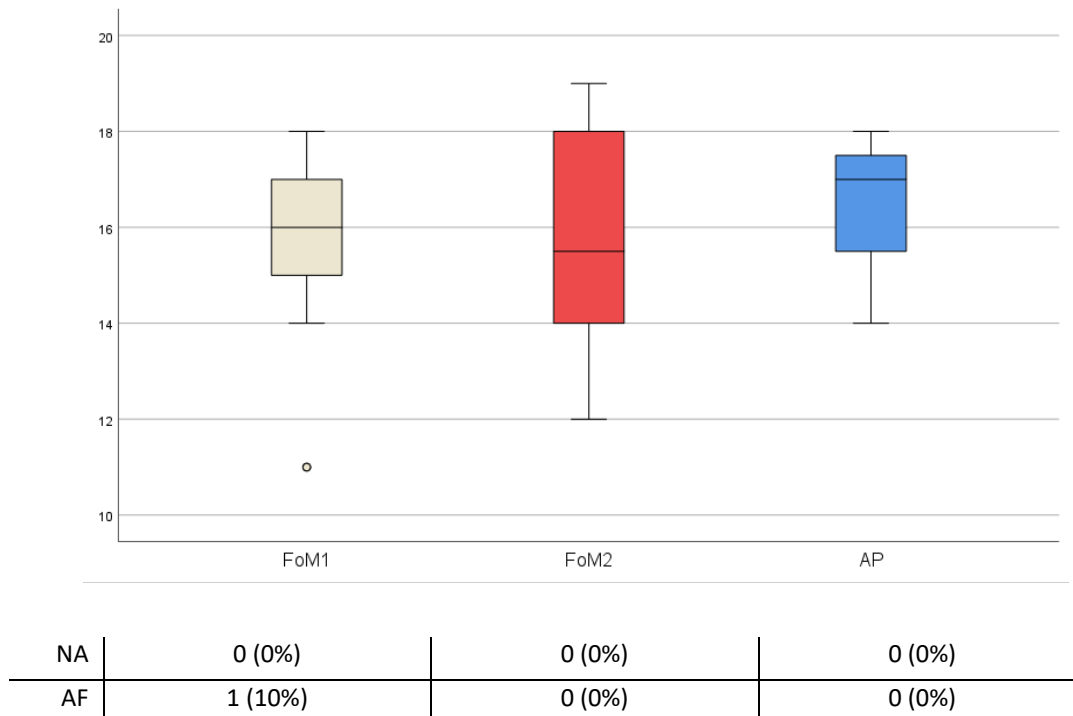
3th year (Alternative Track)

Distribution of Student Scores (*)

2020-2021



2021-2022



Legend

FoM 1 - Foundations of Medicine 1

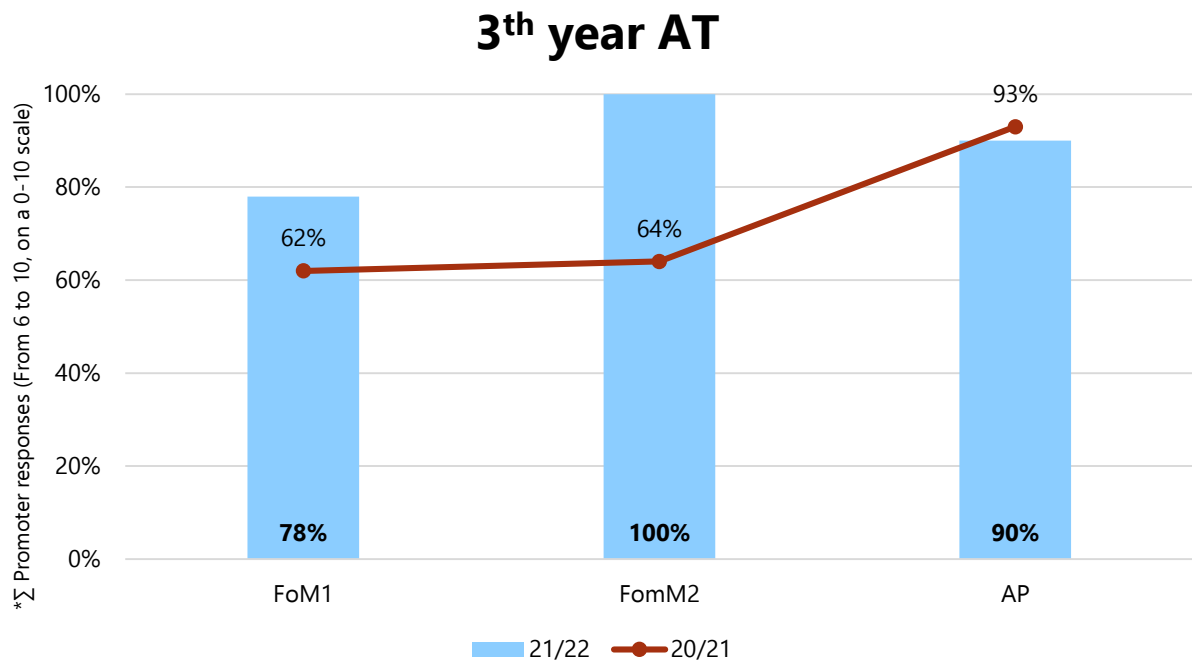
FoM 2 - Foundations of Medicine 2

AP - Academic Profile

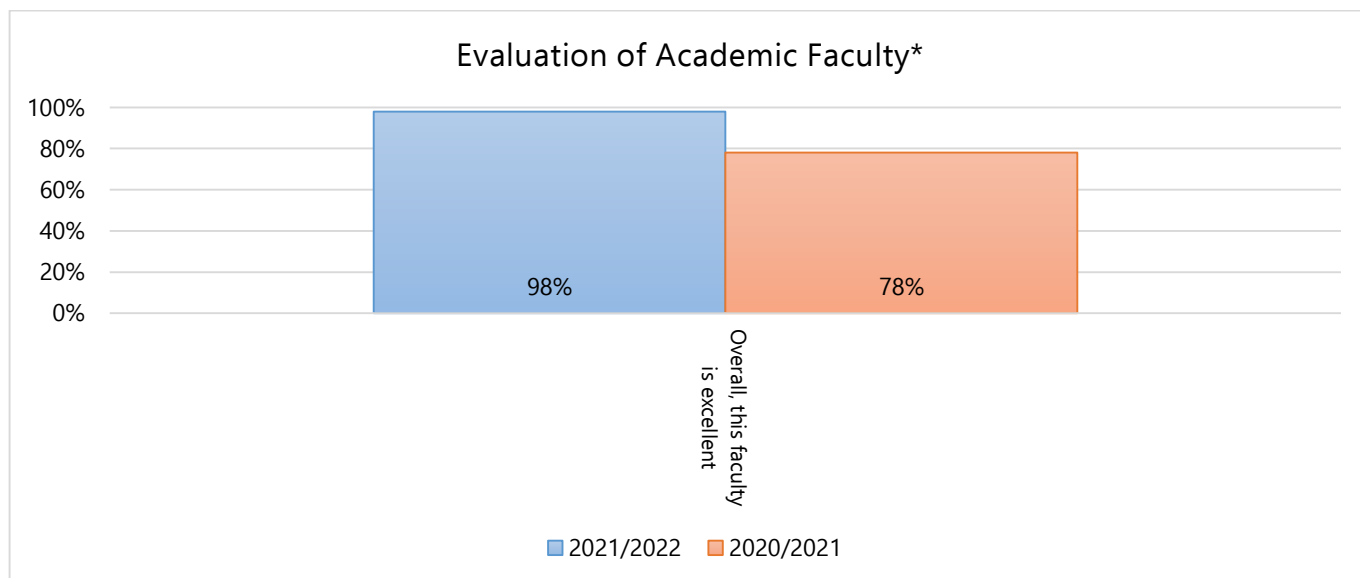
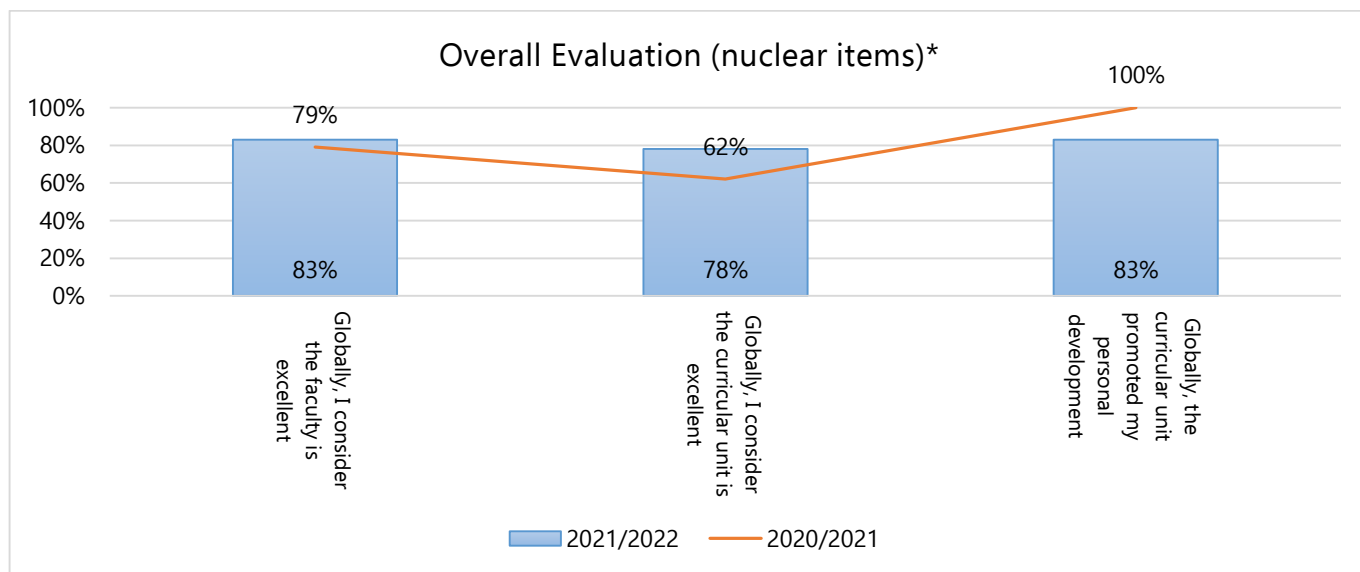
(*) Output provided by the database of EM-UMinho Longitudinal Study

(**) Non-attendants (NA) / (***) Academic failures (AF)

Student responses to the item “Globally, I consider the curricular unit is excellent “

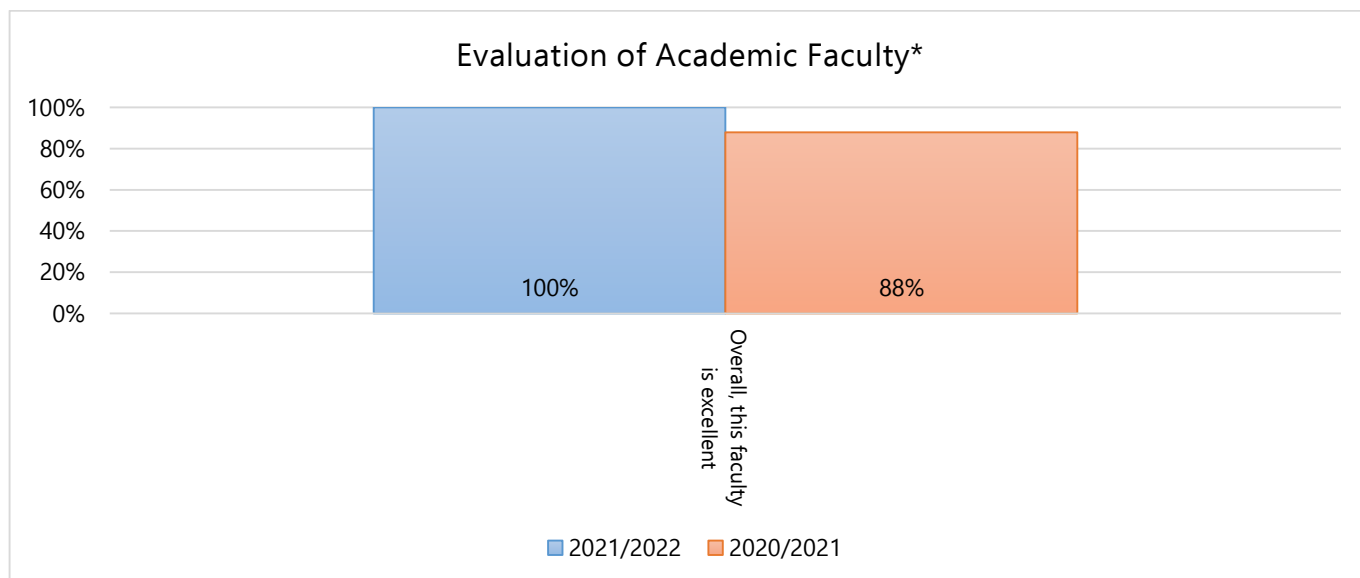
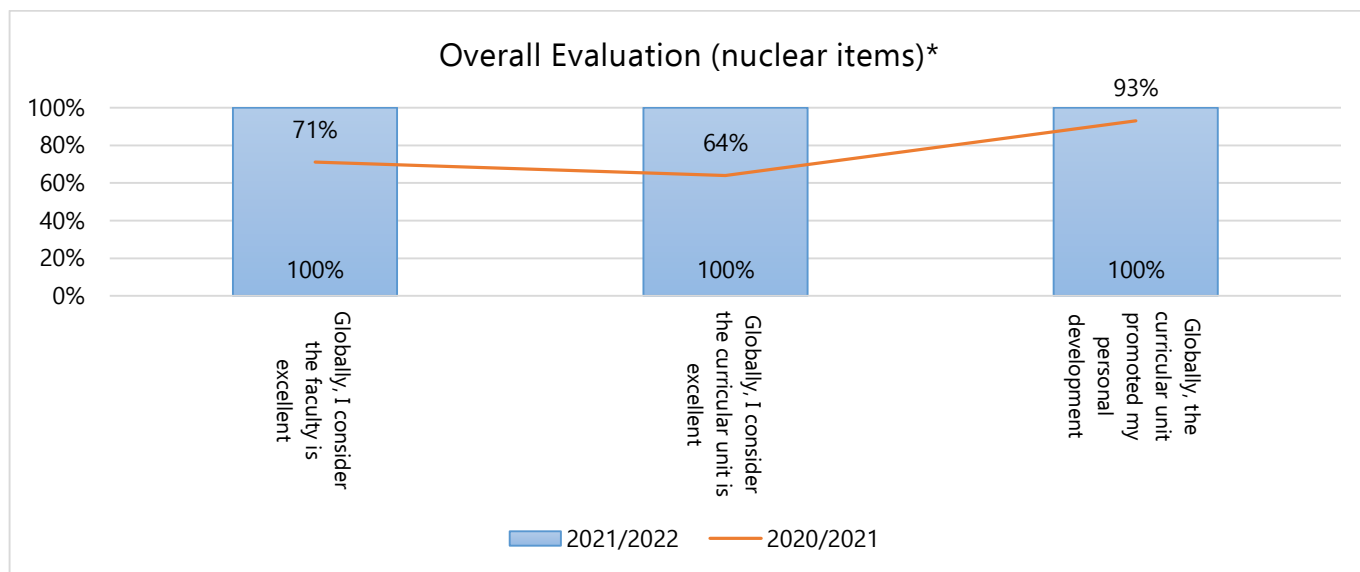


Curricular Unit: Foundations of Medicine 1



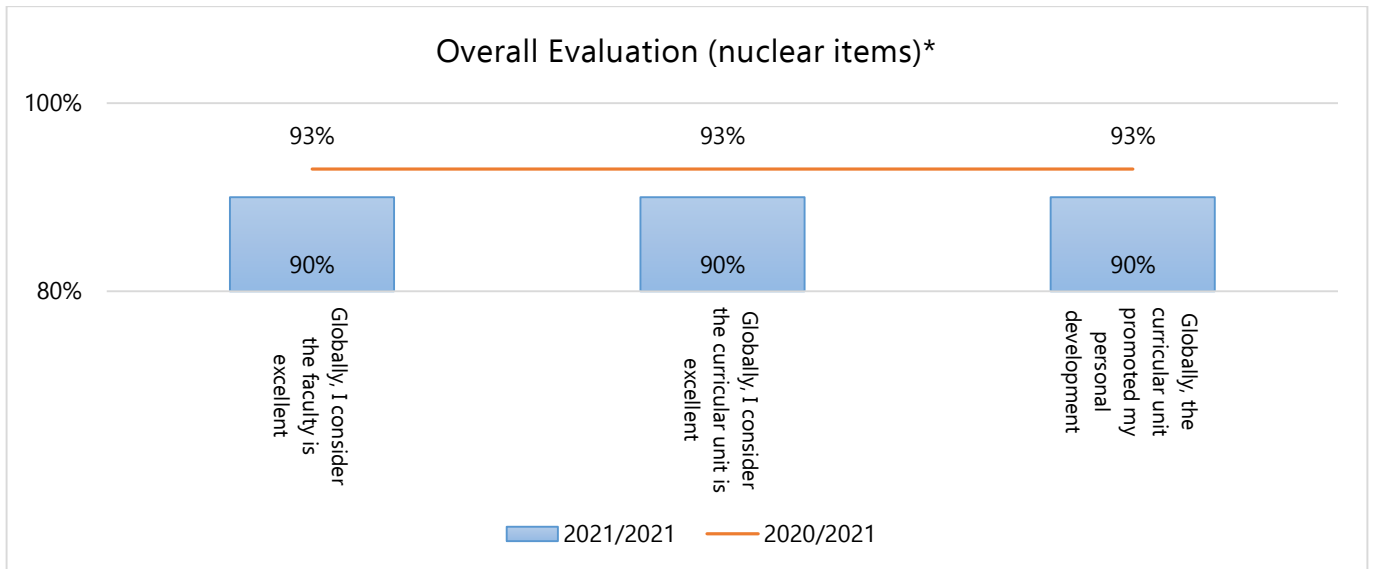
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Foundations of Medicine 2



* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Academic Profile

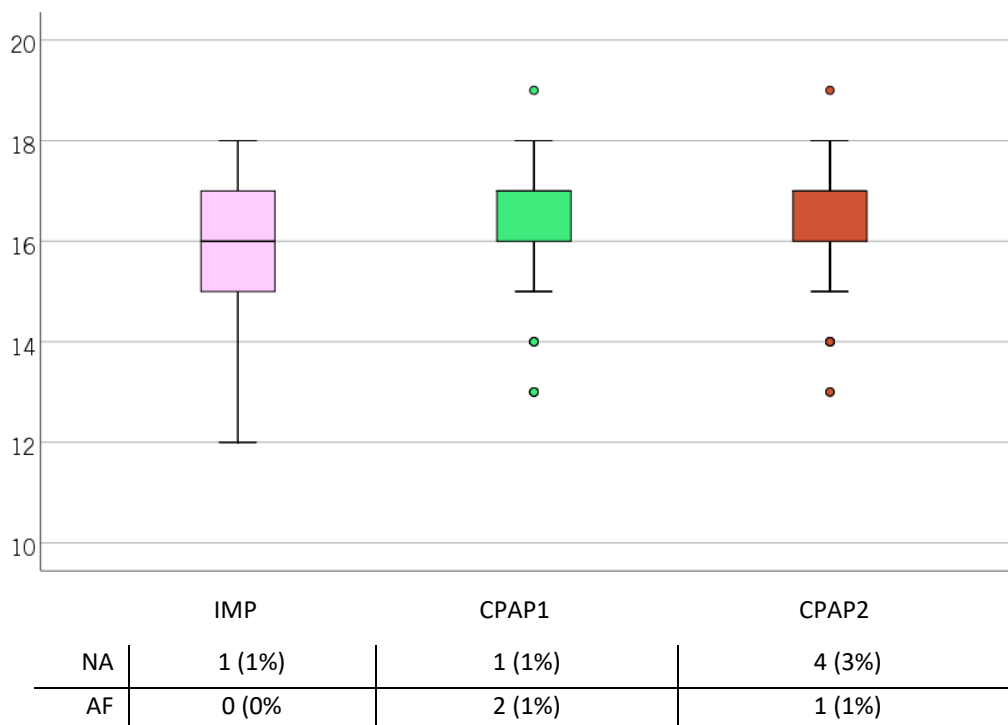


* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

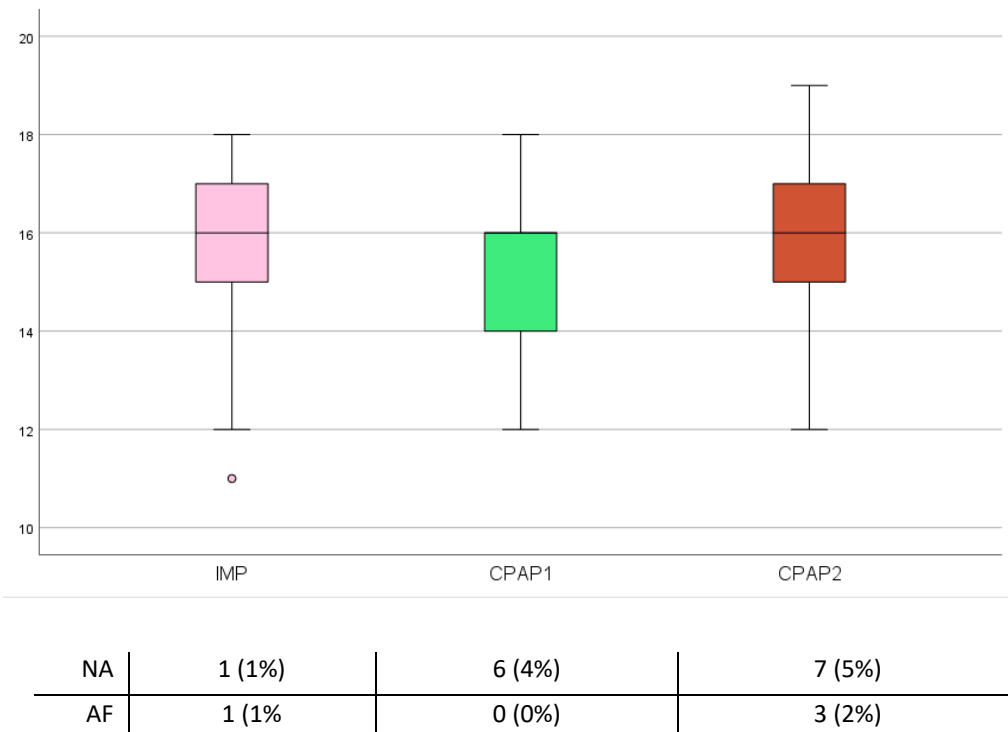
4th year

Distribution of Student Scores (*)

2020-2021



2021-2022



Legend

IMP - Introduction to Medical Practice

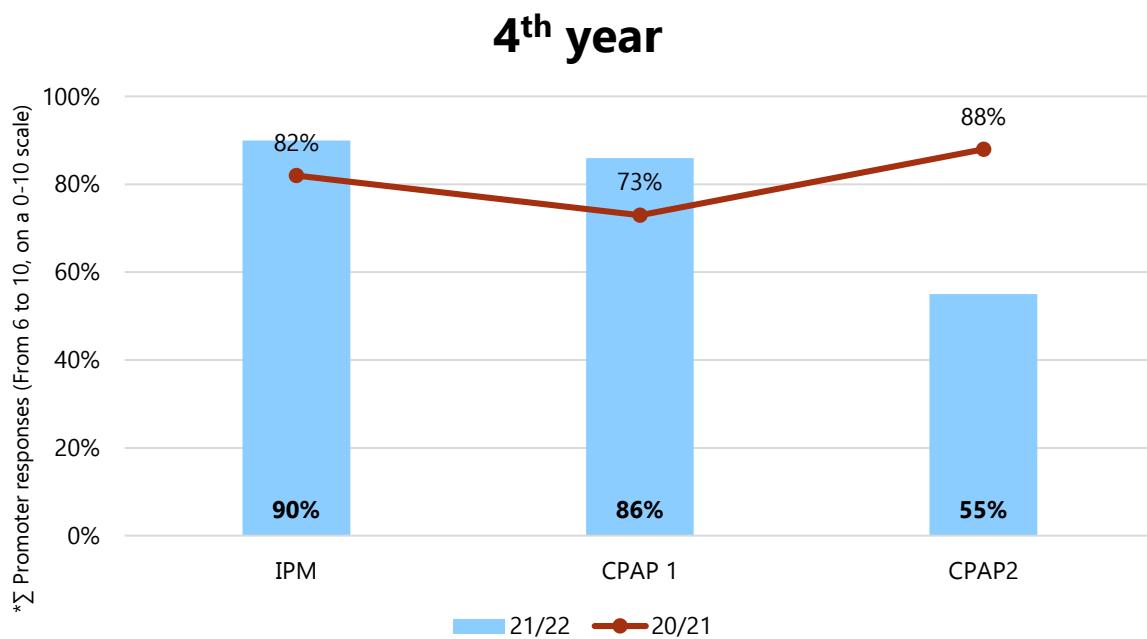
CPAP 1 – Clinical Practice and Academic Profile 1

CPAP 2 – Clinical Practice and Academic Profile 2

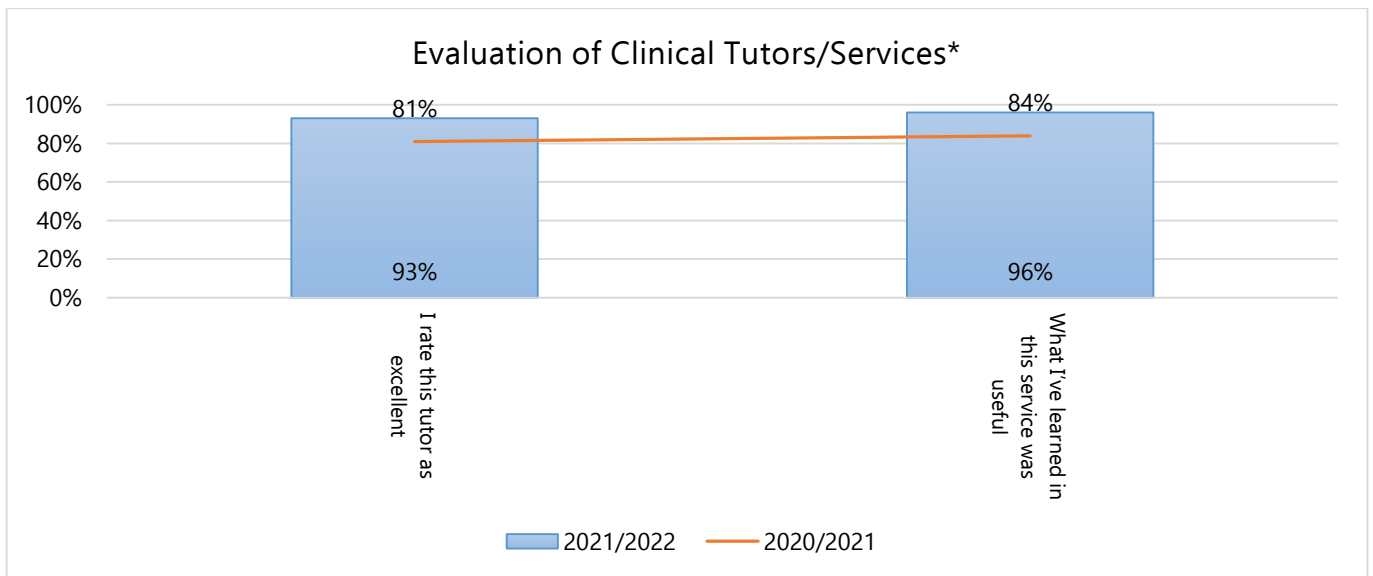
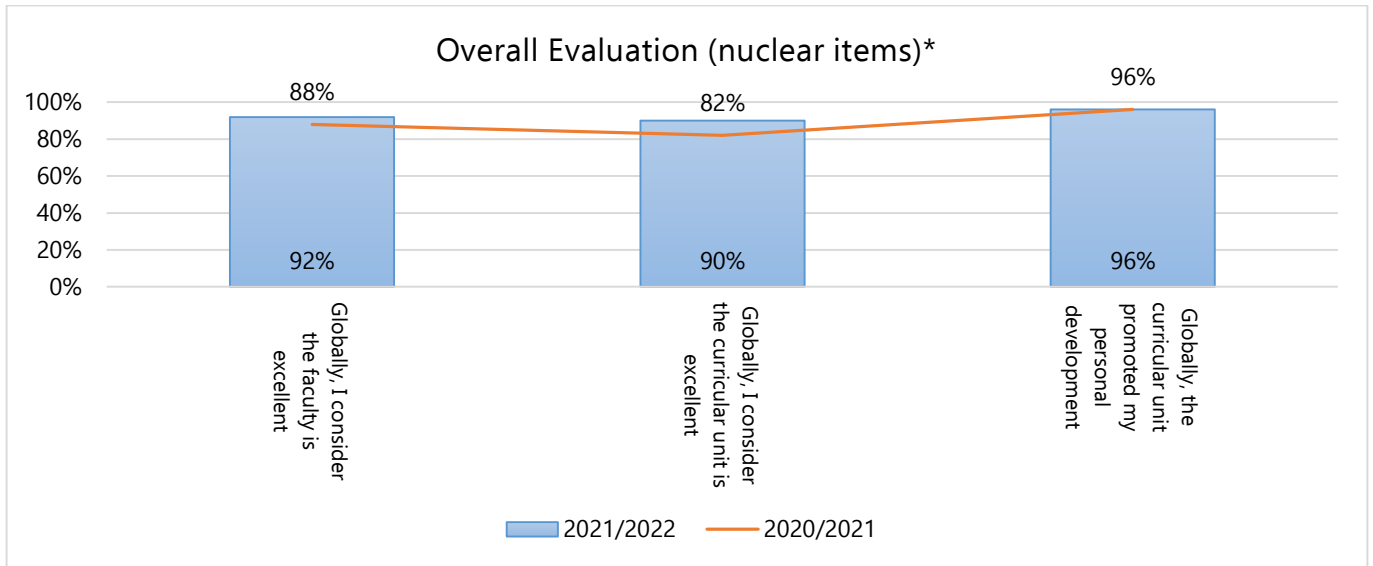
(*) Output provided by the database of EM-UMinho Longitudinal Study

(**) Non-attendants (NA) / (***) Academic failures (AF)

Student responses to the item “Globally, I consider the curricular unit is excellent “

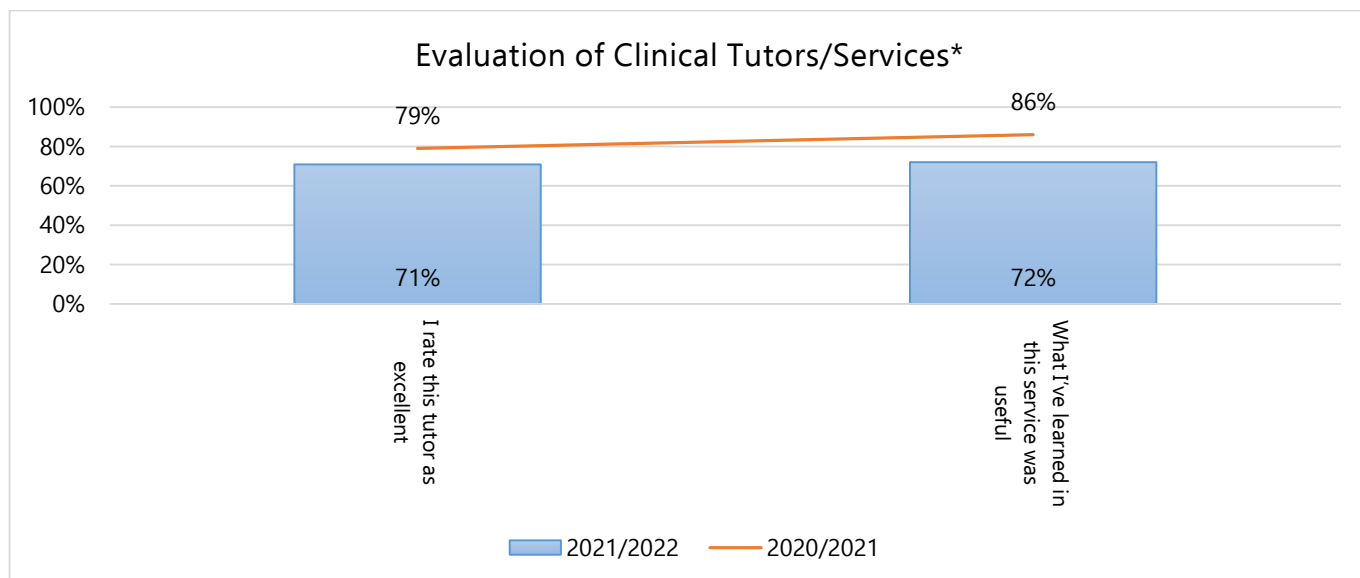
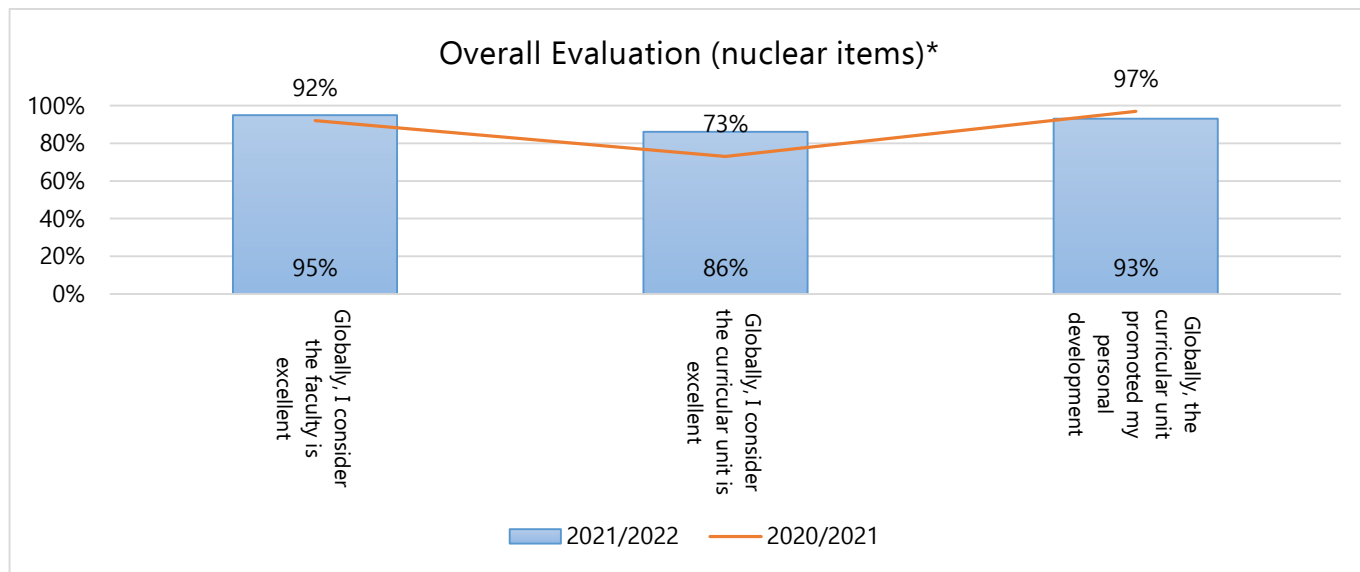


Curricular Unit: Introduction to Medical Practice



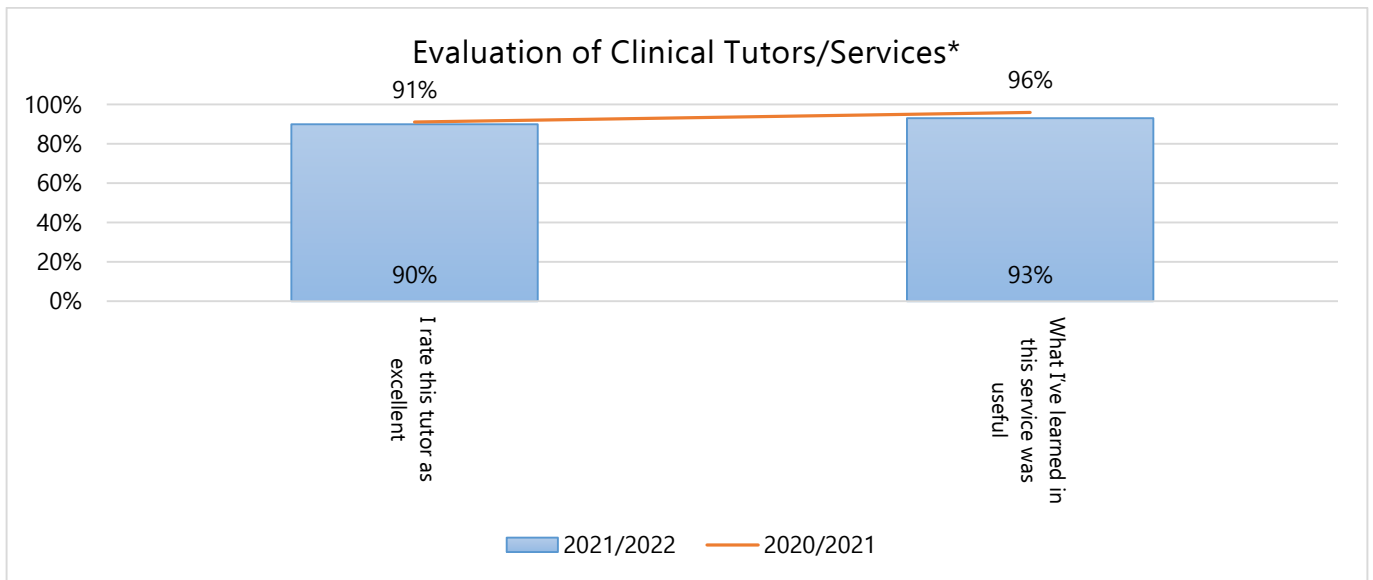
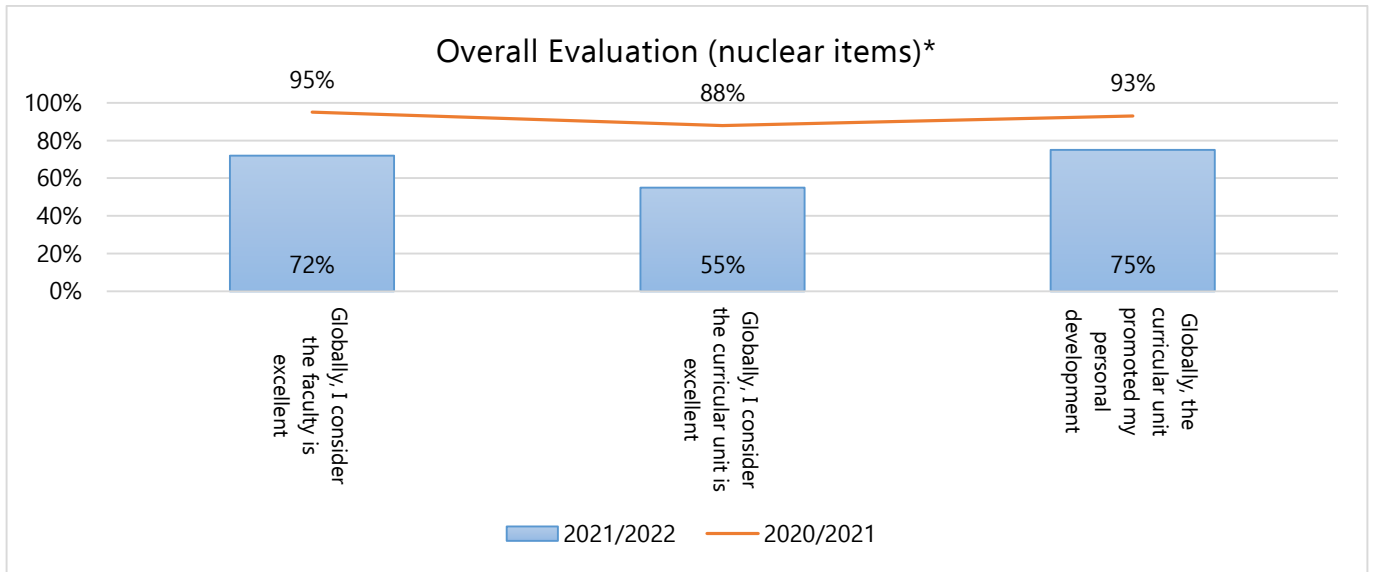
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Clinical Practice and Academic Profile 1



* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Clinical Practice and Academic Profile 2

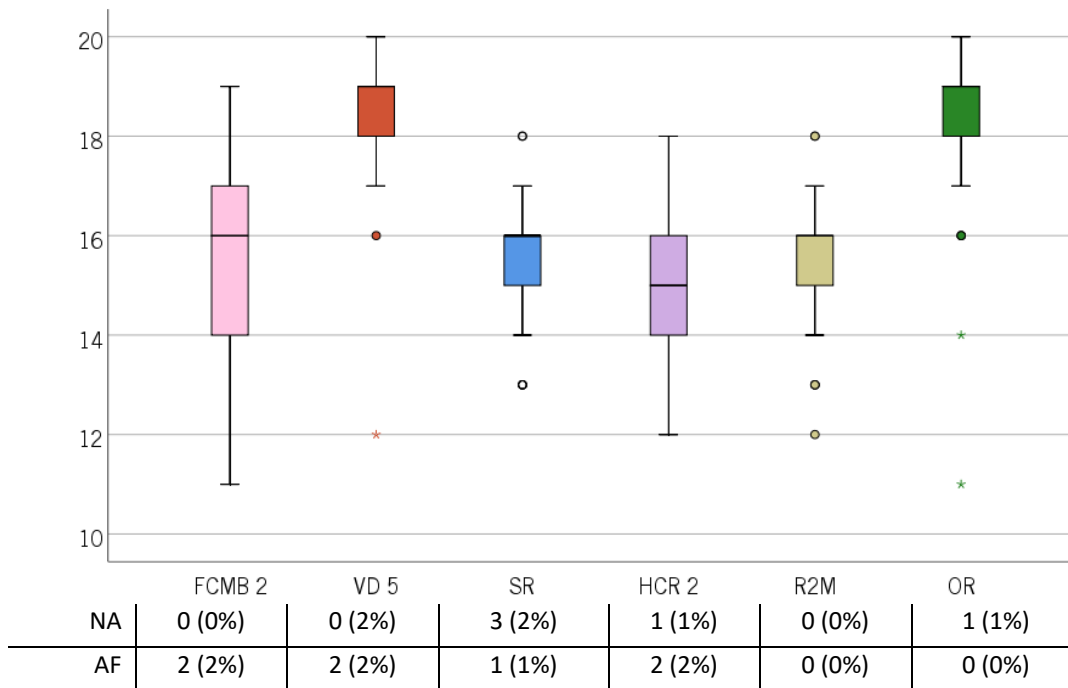


* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

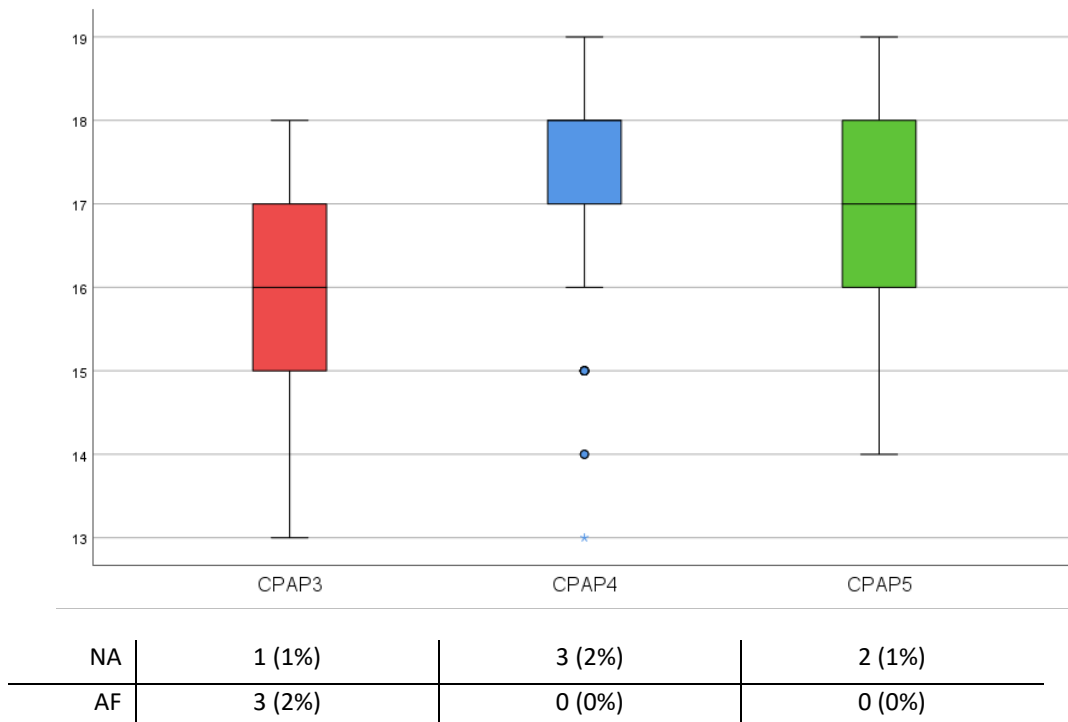
5th year

Distribution of Student Scores (*)

2020-2021



2021-2022



Legend

SR – Surgery Residency

M2R – Medicine 2 Residency

HCR 2 – Health Centers Residency 2

VD 5 – Vertical Domains 5

OR – Optional Residencies

¹ include students that attended this curricular unit in another country

FCMB 2 – From Clinical to Molecular Biology 2

CPAP 3 – Clinical Practice and Academic Profile 1

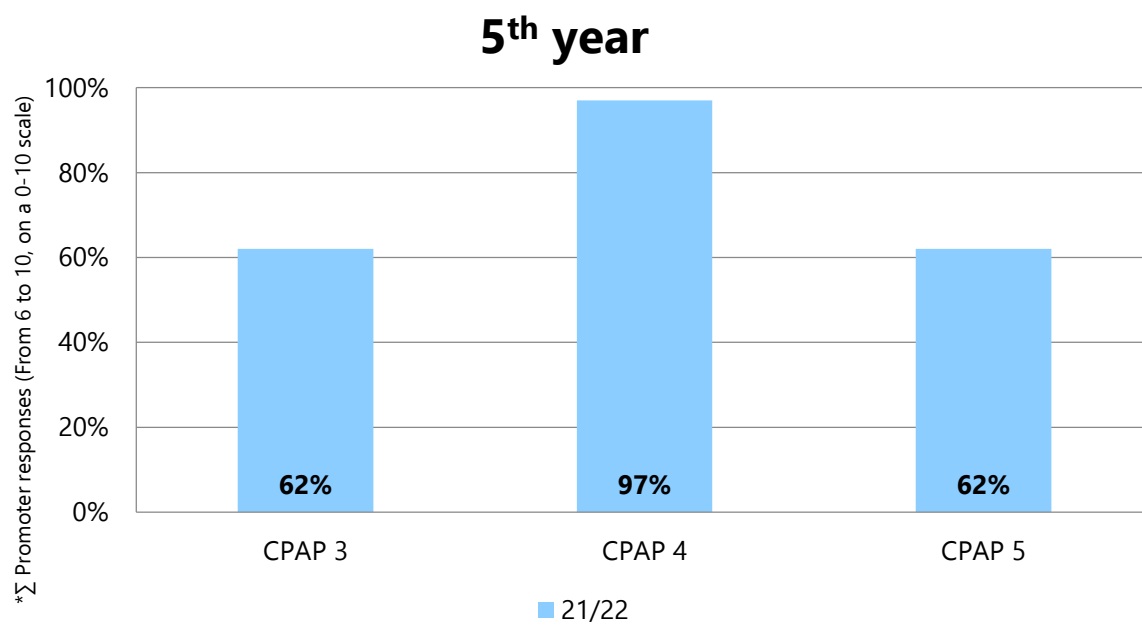
CPAP 4 – Clinical Practice and Academic Profile 2

CPAP 5 – Clinical Practice and Academic Profile 2

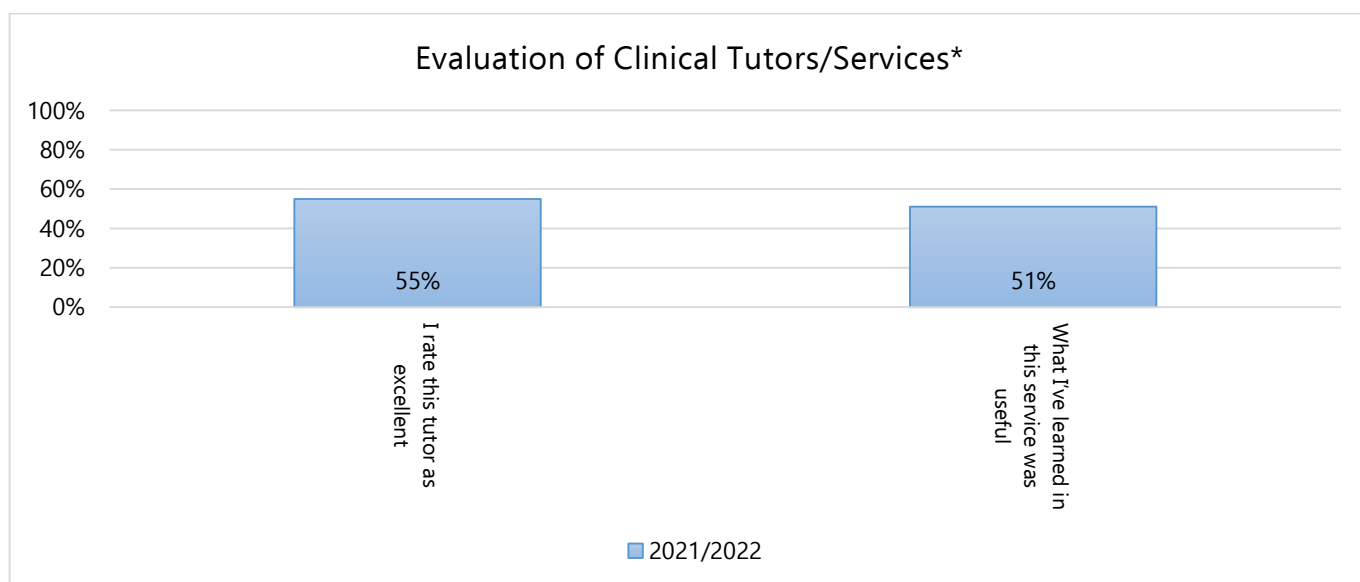
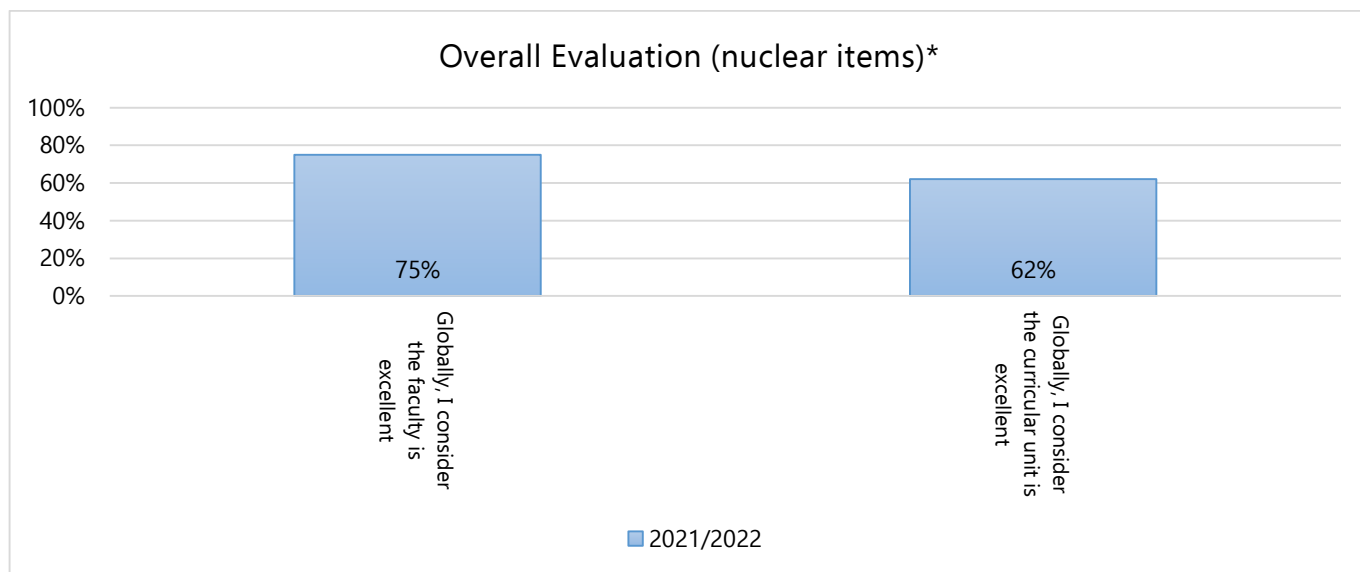
(*) Output provided by the database of EM-Uminho Longitudinal Study

(**) Non-attendants (NA) / (***) Academic failures (AF)

Student responses to the item “Globally, I consider the curricular unit is excellent “

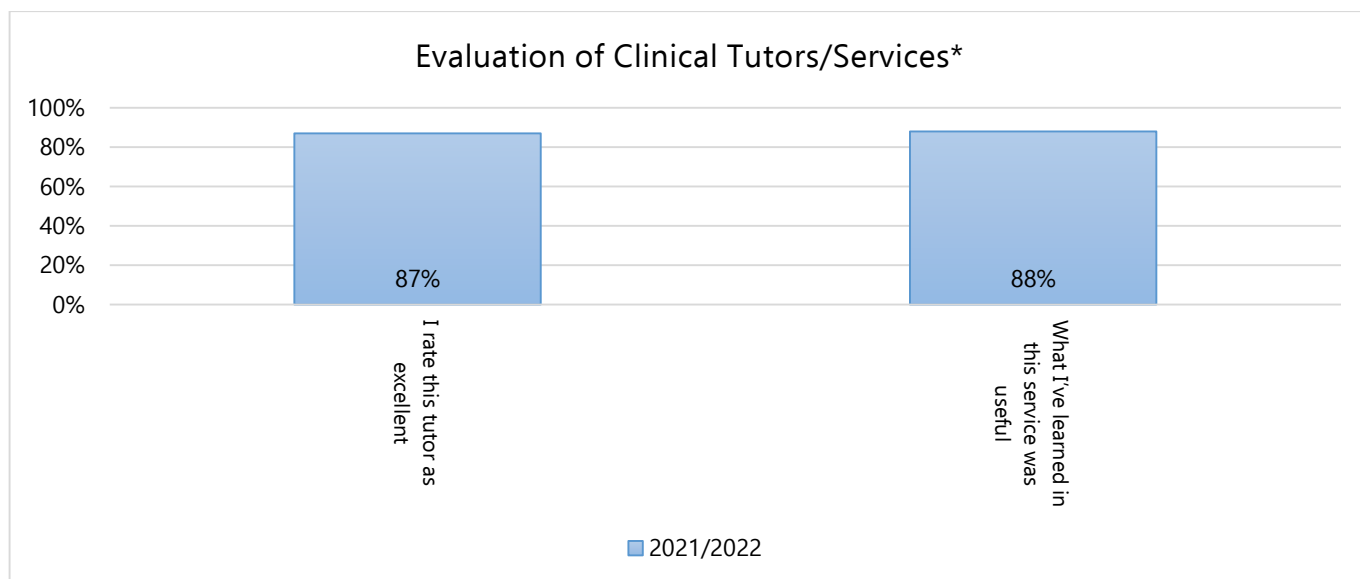
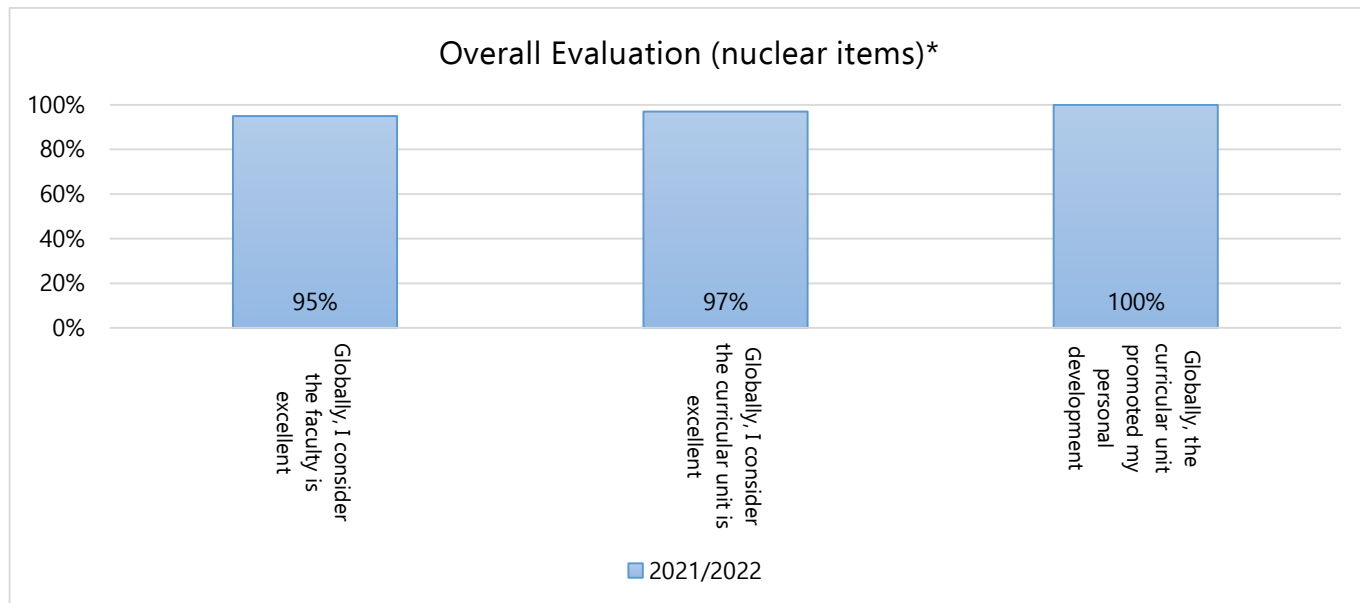


Curricular Unit: Clinical Practice and Academic Profile 3



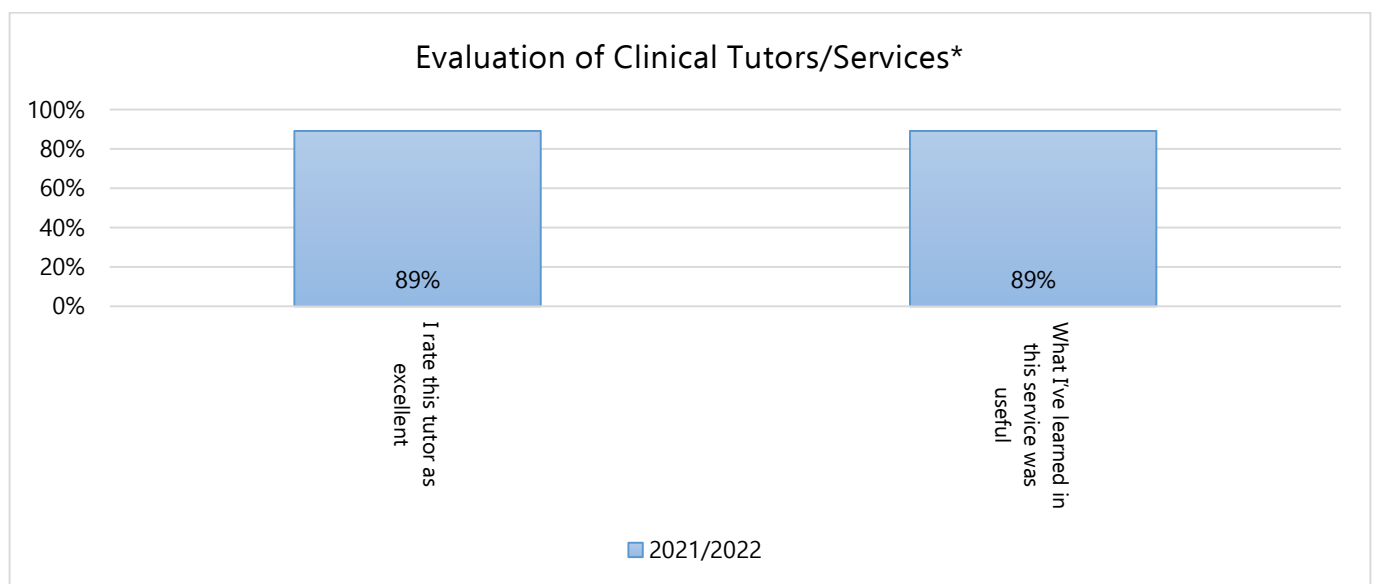
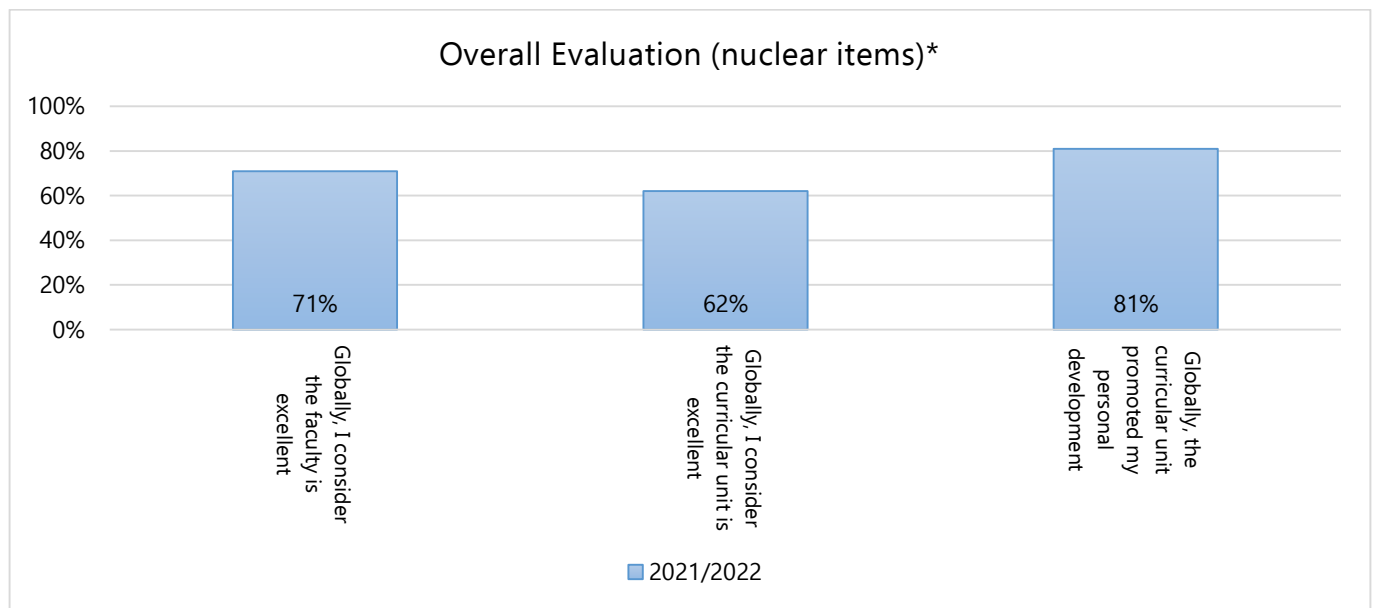
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Clinical Practice and Academic Profile 4



* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Clinical Practice and Academic Profile 5

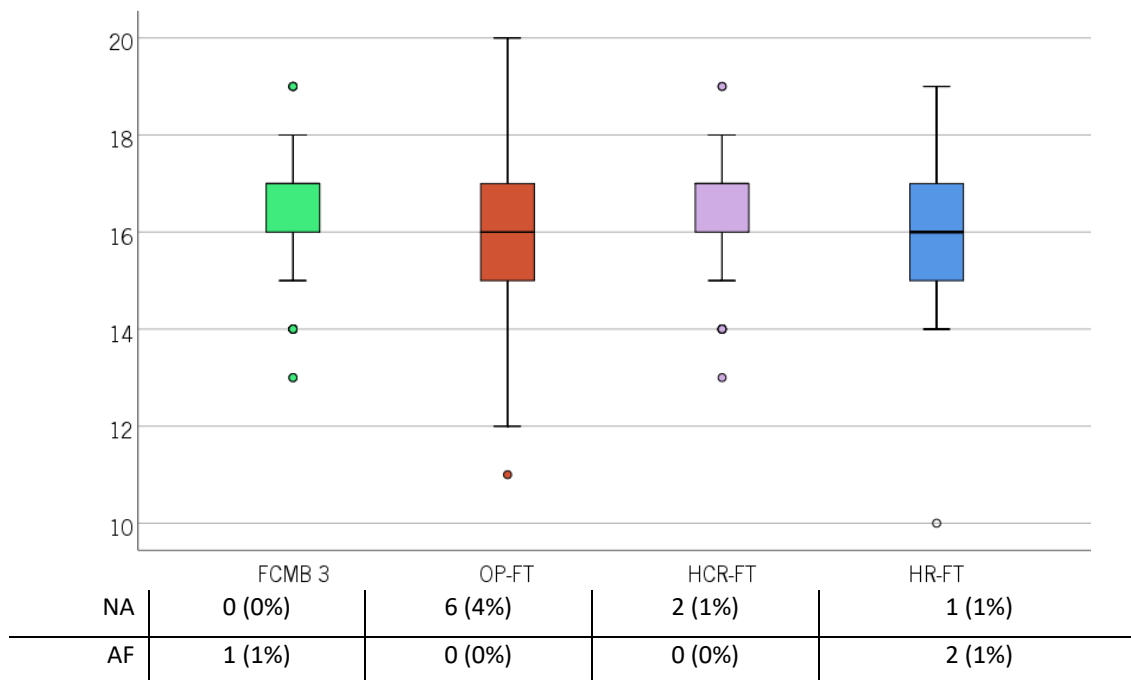


* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

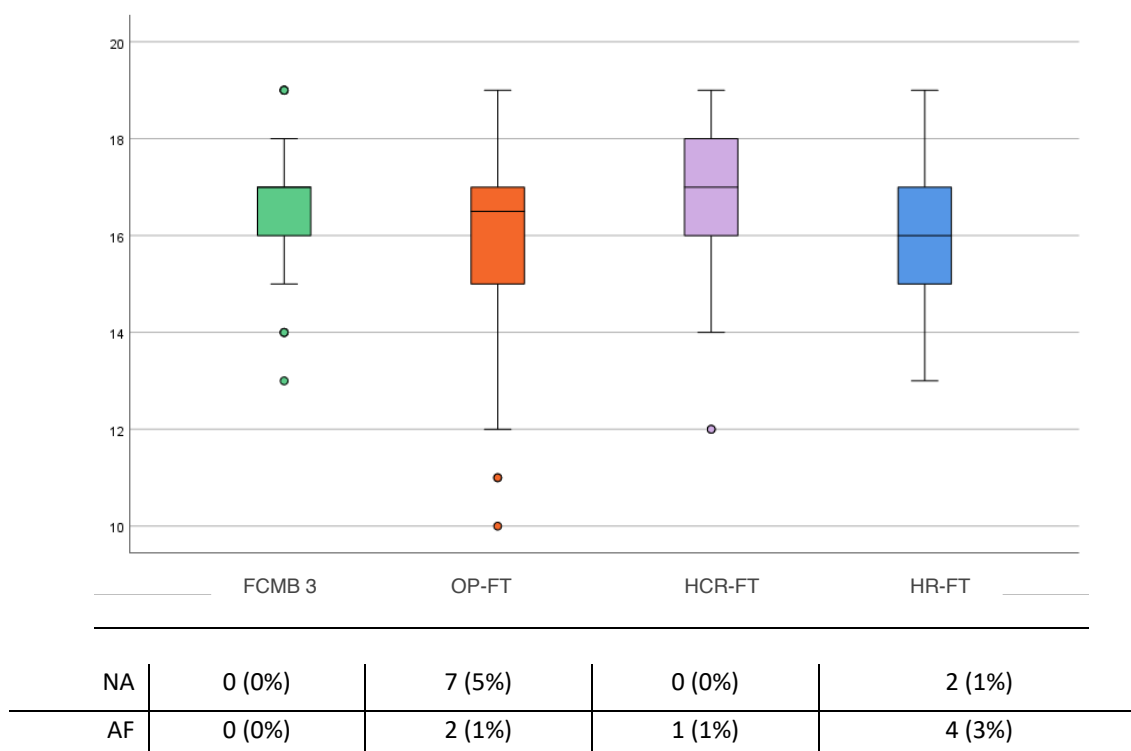
6th year

Distribution of Student Scores (*)

2020-2021



2021-2022



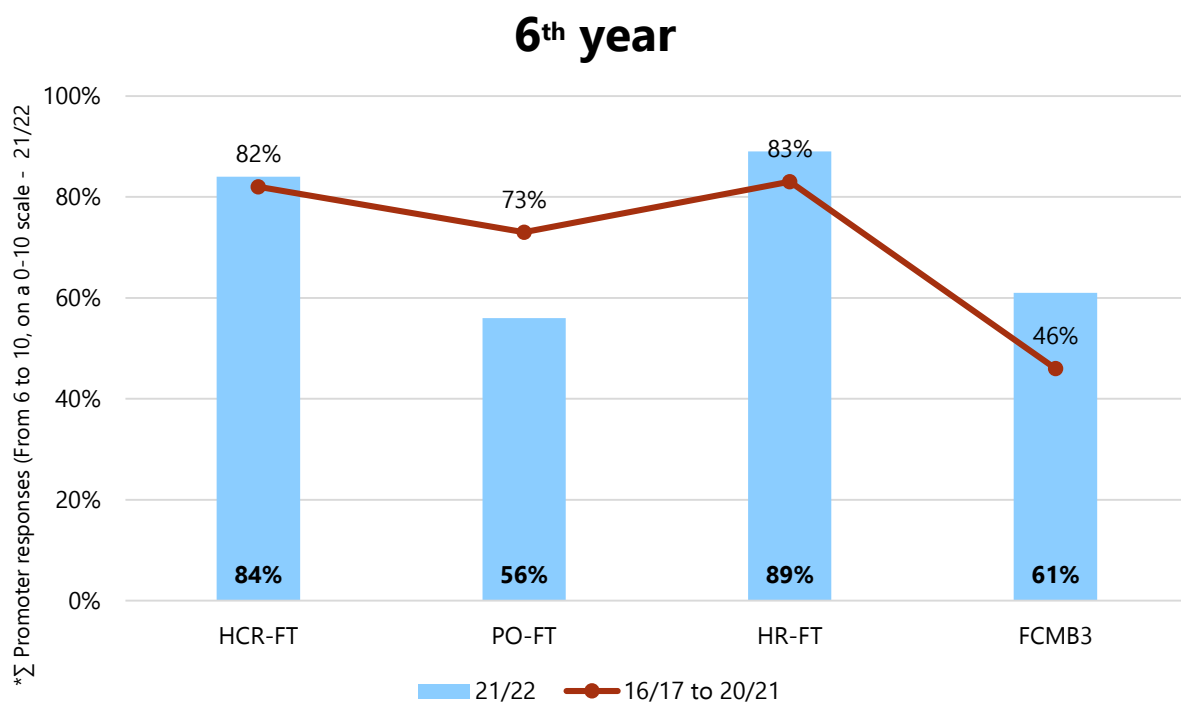
Legend

HCR-FT – Health Centers Residency - Final Training
 OP-FT – Option Project - Final Training
 HR-FT – Hospital Residencies - Final Training
 FCMB 3 – From Clinical to Molecular Biology 3

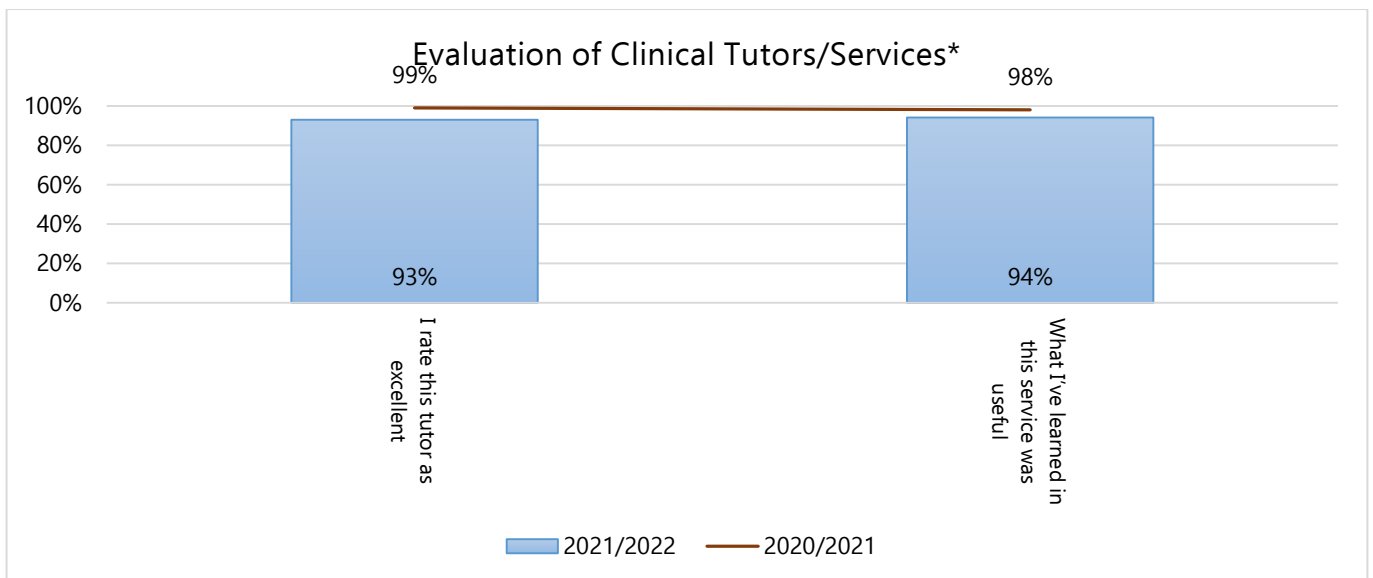
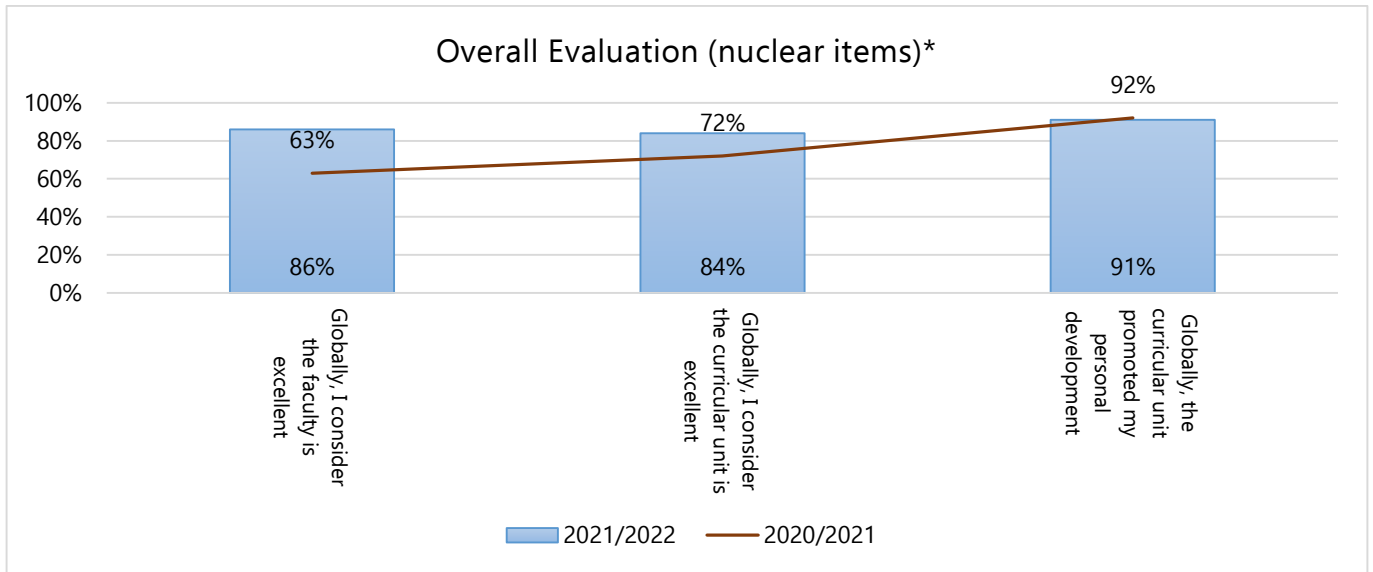
(*) Output provided by the database of EM-UMinho Longitudinal Study

(**) Non-attendants (NA) / (***) Academic failures (AF)

Student responses to the item “Globally, I consider the curricular unit is excellent “

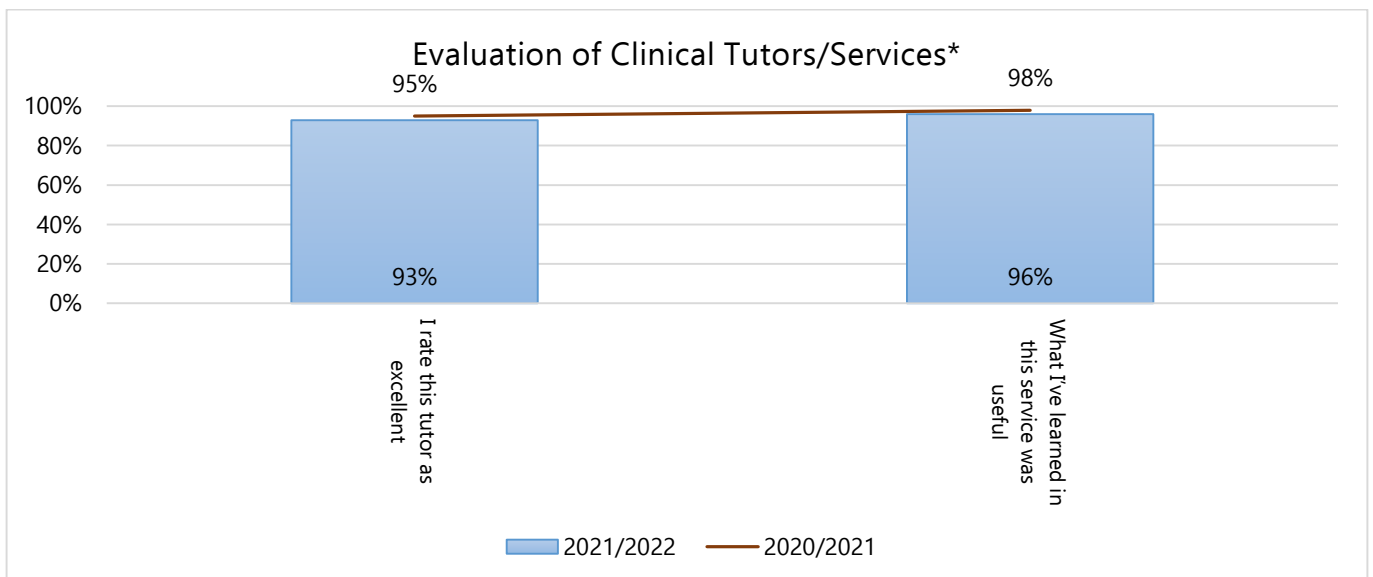
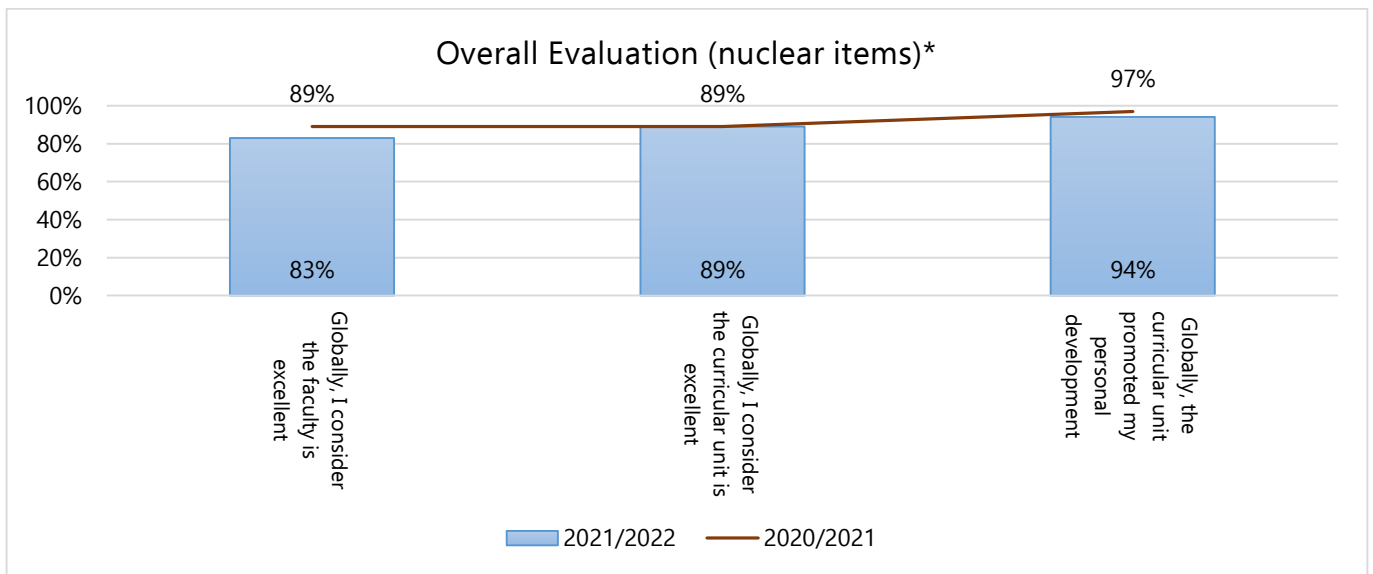


Curricular Unit: Health Centers Residency – Final Training



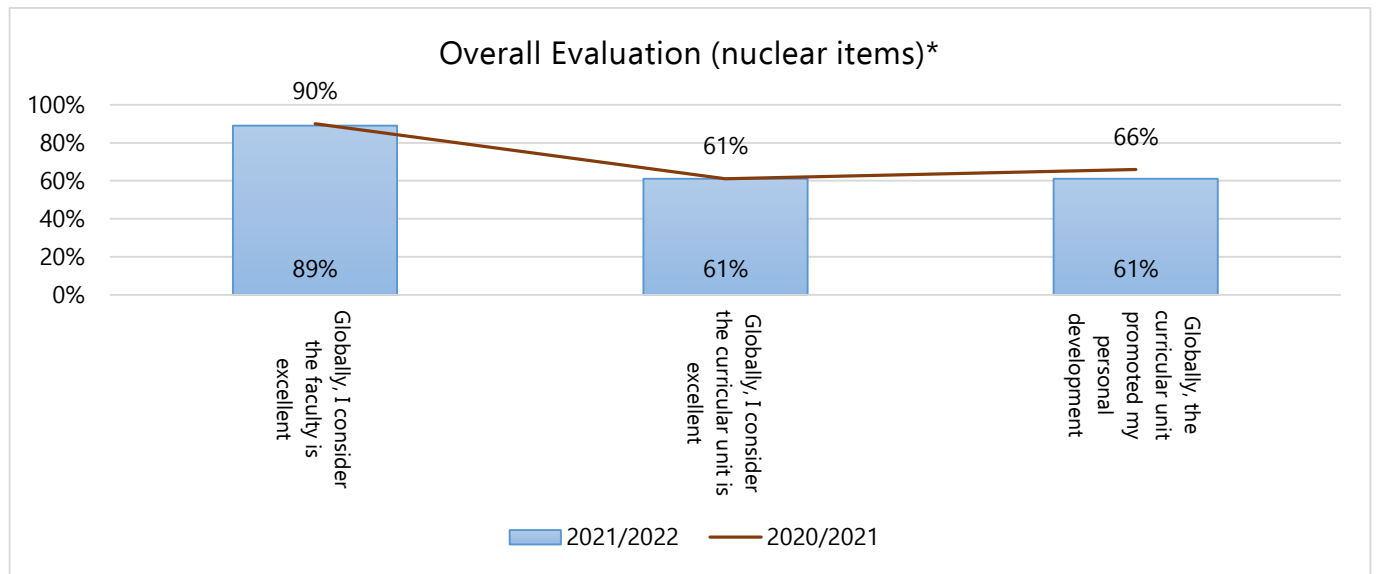
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Hospital Residencies - Final Training



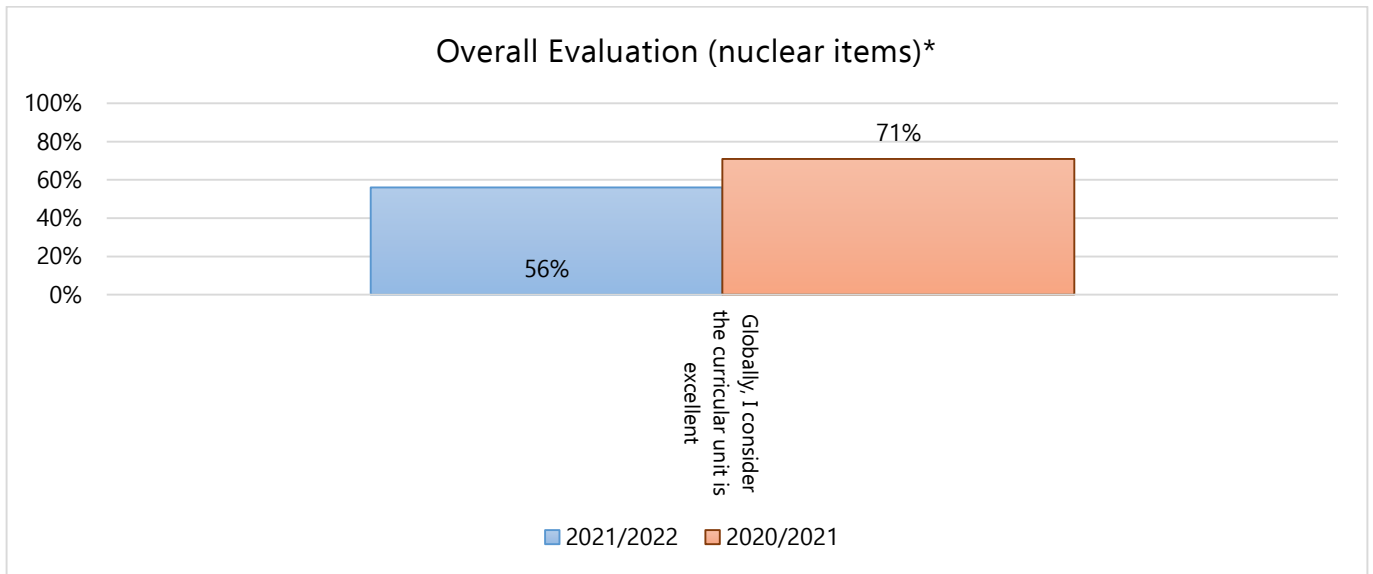
* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: From Clinical to Molecular Biology 3



* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

Curricular Unit: Option Project - Final Training



* Σ Promoter responses (From 6 to 10, on a 0-10 scale)

STUDENTS ADMITTED/REGISTERED 2021-2022

PURPOSE

This document presents a socio-demographic descriptive analysis of students registered in the Medical degree of the EM-UMinho School of Medicine of University of Minho. The document compares the new class of 2021-2022 incoming students with students from the previous 5 years, offering a perspective on the evolution of the sociodemographic of Minho's students. The data were collected by Medical Education Unit at the moment of students' admission, as part of the Minho's Longitudinal Educational Study of School of Medicine.

Used abbreviations:

EM-UMinho – School of Medicine of University of Minho

NAP – National Admission Process

SAR – Special Admission Regimes

SAP – Special Admission Process

GPA – Grade Point Average

REFERENCE SAMPLE: REGISTERED STUDENTS

Table 1: Population totals used in representativeness calculations across the document.

Track	Forms of Admission	Admission academic years		
		2001/2020	2021/2022	Total
Original	NAP: general contingent - 1 st phase	1850	121	1971
	NAP: general contingent - 2 nd phase	24	1	25
	NAP: general contingent - 3 rd phase	4	2	6
	NAP: general contingent - complaints	2	0	2
	NAP: general contingent - total	1880	124	2004
	NAP: islands contingent - 1 st phase	85	8	93
	NAP: handicapped contingent - 1 st phase	24	0	24
	NAP: handicapped contingent - 2 nd phase	1	0	1
	NAP: emigrants contingent - 1 st phase	29	3	32
	NAP: military contingent - 1 st phase	4	0	4
	NAP: non-portuguese course holders - 1 st phase	1	0	1
	NAP: other contingents: complaints	4	1	5
	NAP: Other contingents - total	148	12	160
	NAP: All contingents – 1st phase	1993	132	2125
	National Admission Process - total	2028	136	2164
	SAR: athletes	22	1	23
	SAR: diplomats	4	0	4
	SAR: Portuguese Speaking African Countries	37	8	45
	SAR: Timor	4	0	4
	SAR: Portugueses with a scholarship from abroad	1	0	1
	SAR - total	68	9	77
	SAP: graduates	25	0	25
	Transfers	6	0	6
	Extraordinary Legislation	2	0	2
	Total of other processes of admission	101	9	110
	Original track - total	2129	145	2274
Alternative*	SAP: graduate-entry students	185	18	203
	Aveiro	9	0	9
	Alternative track - total	194	18	212
Original & Alternative	Total	2323	163	2486

* the alternative track began in 2011-2012.

Registered students - High school entry track

1. National admission process: registered students

Figure 1: Student option for EM-UMinho: all NAP contingents (The EM-UMinho was my # option)

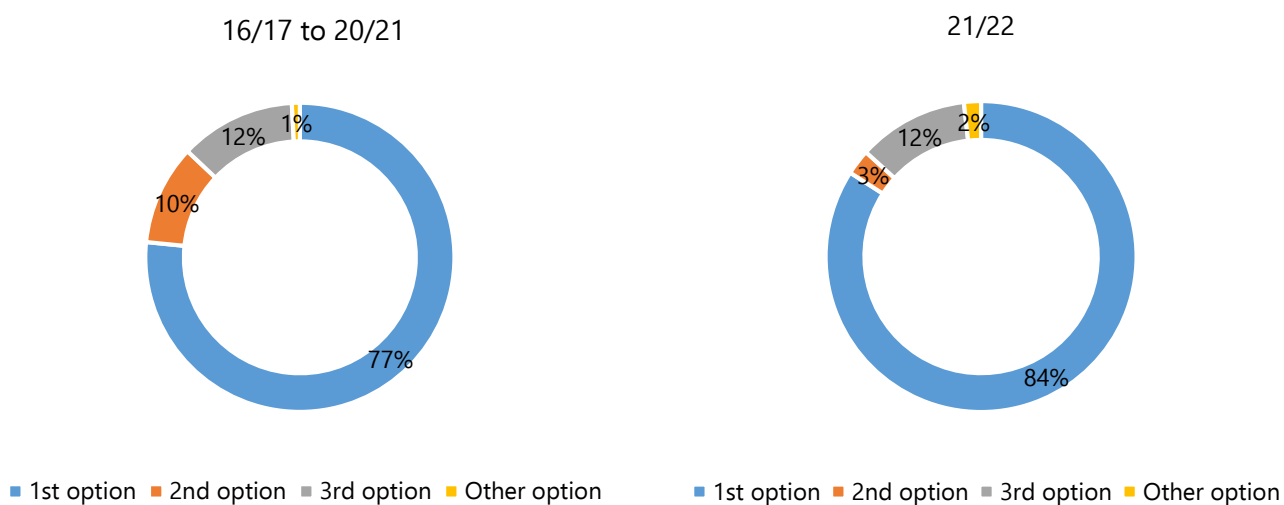


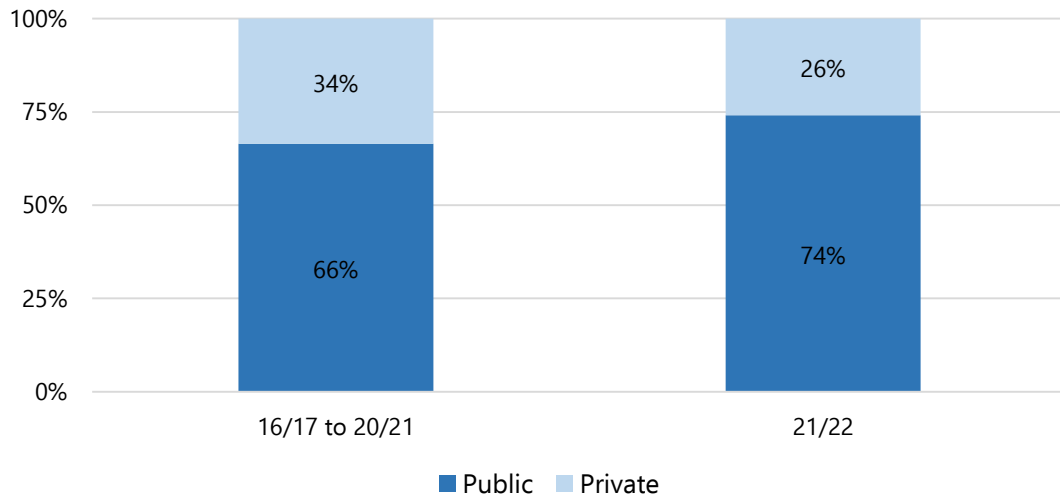
Table 2: Grade point average: general contingents

Academic year of admission	<i>n</i>	<i>M</i>	<i>SD</i>	Min	Max
2016/2017 to 2020/2021	566	186,02	3,99	176,30	198,00
2021/2022	104	191,02	3,23	177,00	198,70

Table 3: Grade point average: other contingent

Academic year of admission	<i>n</i>	<i>M</i>	<i>SD</i>	Min	Max
2016/2017 to 2020/2021	36	170,03	7,66	154,5	188,3
2021/2022	11	169,05	8,19	154,7	183,5

Figure 2: Type of secondary school attended in the 12th grade: all contingents



2. All admission processes: all registered students

Figure 3: Student gender

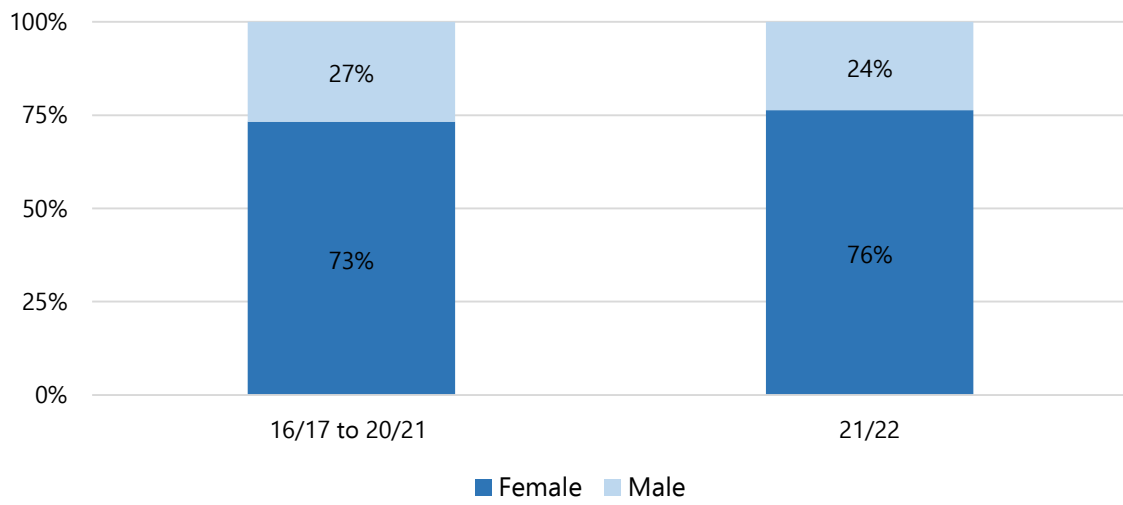


Table 4: Student age

Forms of Admission	2016/2017 to 2020/2021						2021/2022					
	<i>n</i>	%	<i>M</i>	<i>SD</i>	Min	Max	<i>n</i>	%	<i>M</i>	<i>SD</i>	Min	Max
NAP	582	96%	18,28	0,82	17	27	113	97%	18,02	0,79	17	23
SAR	24	4%	18,46	0,72	18	20	3	3%	17,67	0,58	17	18
Sample (representativeness)	606	100%	18,29	0,82	17	27	116	100%	18,01	0,79	17	23

Figure 4: Student nationality

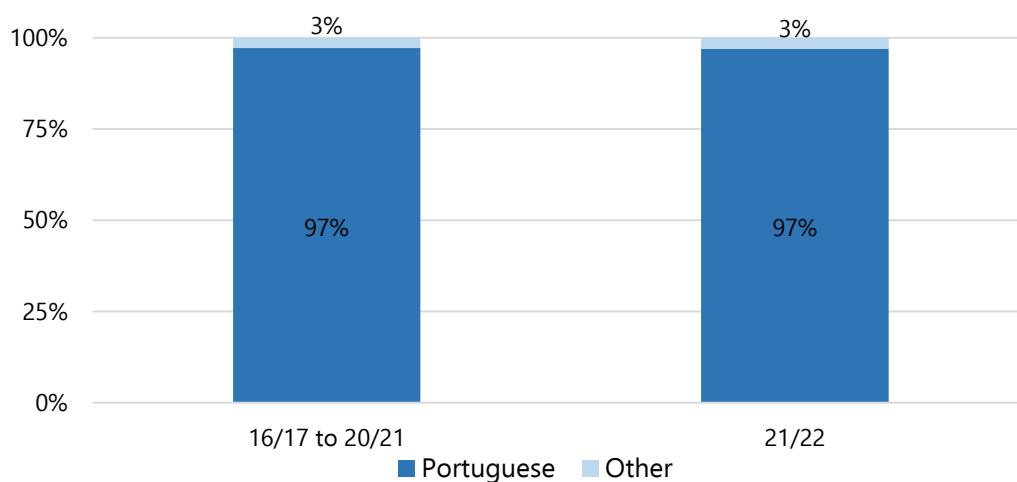


Figure 5: District of residence

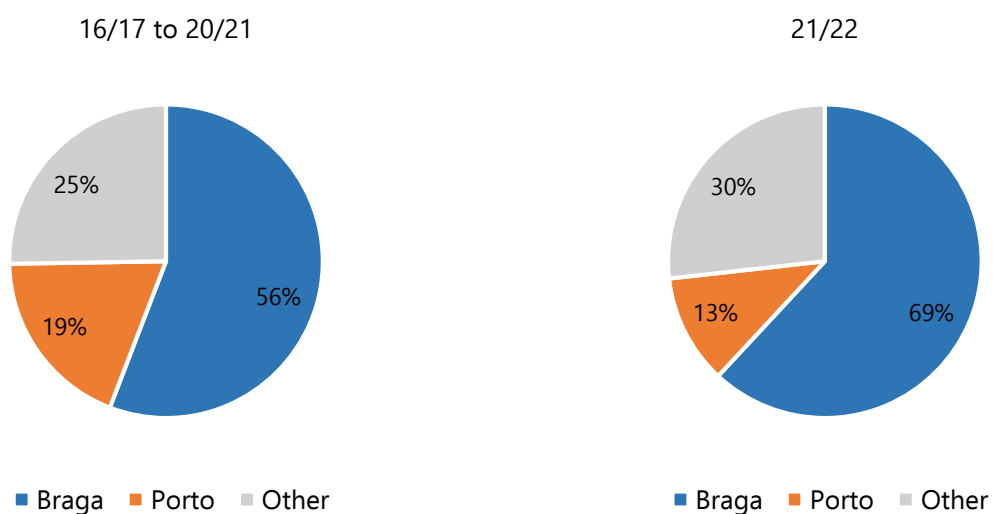


Figure 6: Student admission: moving away from the family home (study in EM-UMinho meant I had to leave the family home)

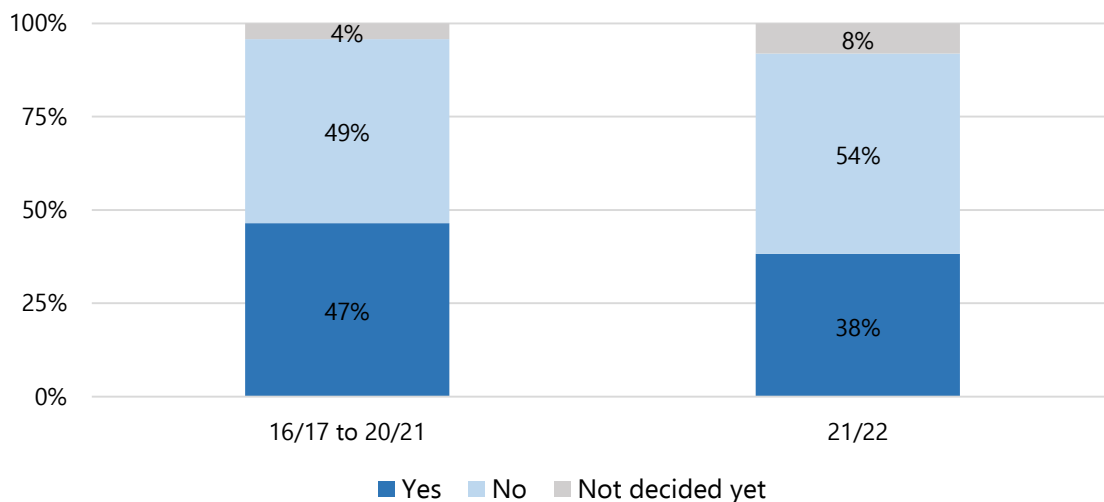


Figure 7: Student registration in higher education: 1st time

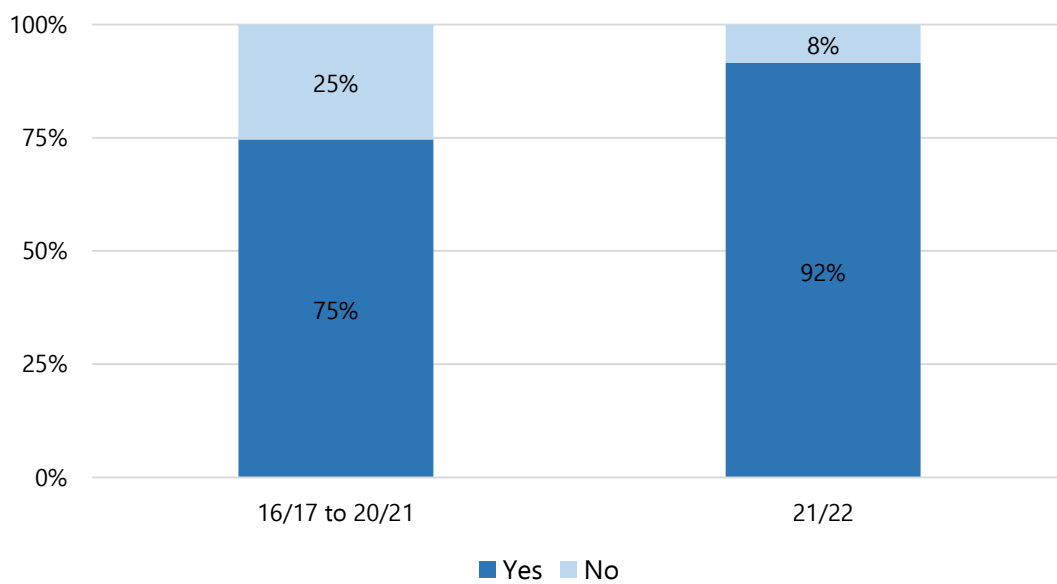


Table 5: Factors that influenced student's decision to choose EM-UMinho

Factor	No. of times selected as one of the four relevant factors	%
Geographical proximity	76	65%
Geographic proximity of family	13	11%
Economic resources owned	8	7%
Access grade point average from the previous year	20	17%
Extracurricular academic life	12	10%
Quality of learning/teaching process	96	82%
Prestige of the degree	47	40%
The curriculum of the degree	69	59%
Teaching / learning methodologies	75	64%
Friends influence	8	7%
Family influence	6	5%
Former or actual students information	24	21%

Table 6: Student educational background on admission

Educational background	2016/2017 to 2020/2021		2021/2022	
	<i>n</i>	%	<i>n</i>	%
Secondary school	601	110,1%	126	87,3%
Higher education – Bachelor	3	0,5%	0	0,0%
Higher education – “Licenciatura”	46	8,4%	7	5,2%
Postgraduate – Master	36	6,6%	8	6,0%
Postgraduate – PhD	1	0,2%	2	1,5%

Figure 8: Student employment status on admission

Academic year of admission	With no activity		Part-time worker		Full-time worker	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
2016/2017 to 2020/2021	661	96,8%	17	2,5%	5	0,7%
2021/2022	123	91,8%	10	7,5%	1	0,7%

Table 7: Student parents educational background

Educational background	2016/2017 to 2020/2021				2021/2022			
	Father		Mother		Father		Mother	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1st cycle of basic education	32	5,9%	28	5,2%	8	5,9%	6	4,4%
2nd cycle of basic education	70	12,9%	49	9,0%	15	11,0%	8	5,9%
3rd cycle of basic education	89	16,5%	72	13,3%	18	13,2%	13	9,6%
High school	200	37,0%	120	22,1%	41	30,1%	31	22,8%
Higher education – bachelor	20	3,7%	12	2,2%	5	3,7%	6	4,4%
Higher education – “licenciatura”	179	33,1%	181	33,4%	31	22,8%	55	40,4%
Postgraduate	5	0,9%	3	0,6%	1	0,7%	2	1,5%
Master	60	11,1%	61	11,3%	12	8,8%	11	8,1%
PhD	28	5,2%	16	3,0%	5	3,7%	4	2,9%
Total	541	126%	542	100%	136	100%	136	100%

Registered students - Graduate entry track

1. Registered students: all registered students

Table 8: Information about previous degrees

	2016/2017 to 2020/2021					2021/2022				
	<i>n</i>	<i>M</i>	<i>SD</i>	Min	Max	<i>n</i>	<i>M</i>	<i>SD</i>	Min	Max
No. of years of the previous degree	82	3,71	1,06	1	6	17	3,53	1,01	2	5
No. of years it took to complete the previous degree	81	3,78	1,10	1	6	17	3,71	1,11	2	5
Final classification of the previous degree	79	15,46	1,09	14	19	17	15,71	1,49	14	18

Figure 9: My previous degree was my # option

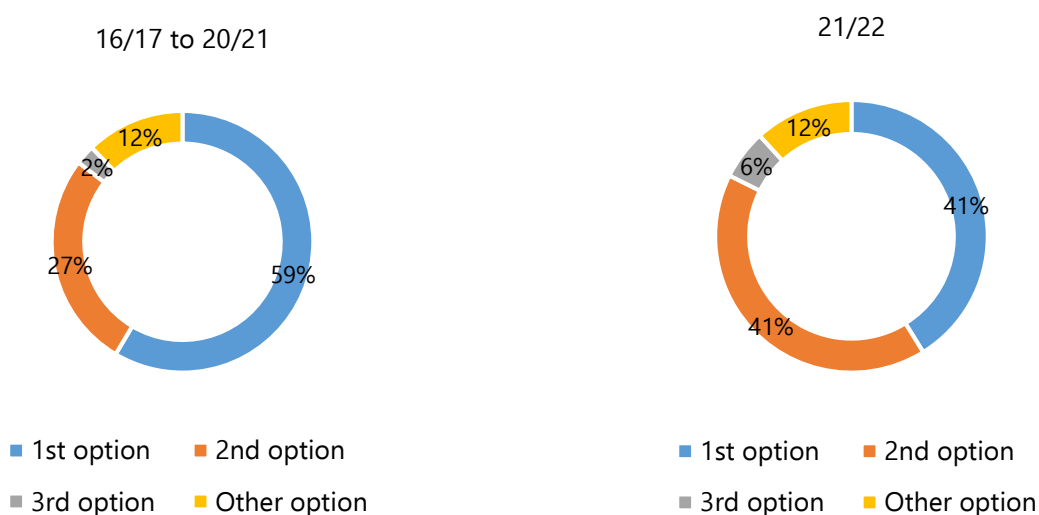


Figure 10: Medical Degree: When admitted to the previous degree, Medicine was my first option

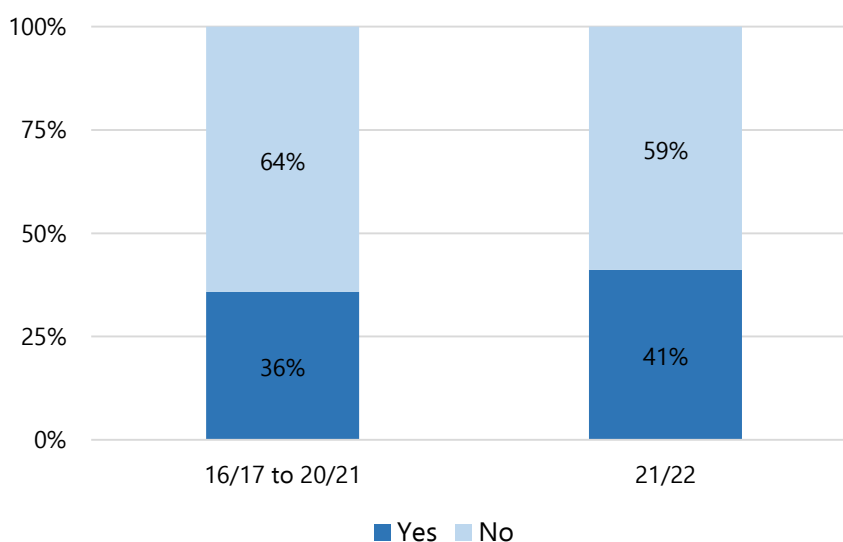


Figure 11: Student option for EM-UMinho: The EM-UMinho was my # option

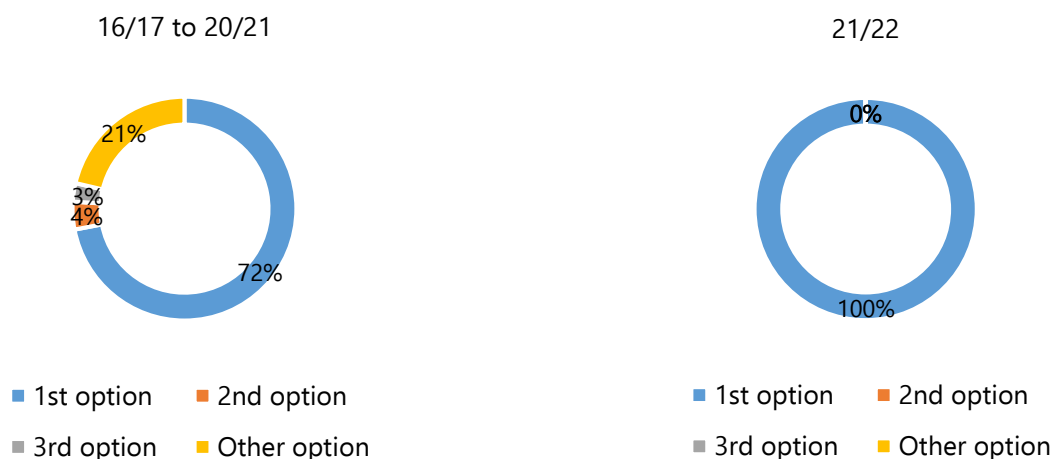


Figure 12: Present year: The student applied to other medical degrees

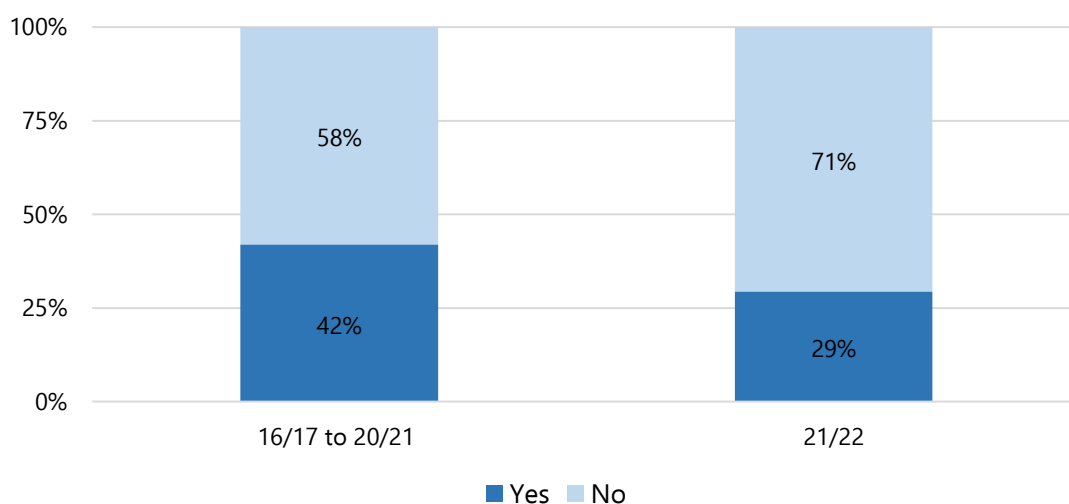


Table 9: Factors that influenced student’s decision to choose the medical degree

Factor	No. of times selected as one of the four relevant factors	%
The track match my educational/ professional/ vocational interests	18	100%
Familiar tradition	1	6%
Friends influence	3	17%
Better quality of life	12	67%
Higher employment rate	16	89%
Personal / family experience with health and illness	15	83%

Table 10: Factors that influenced student’s decision to choose EM-UMinho

Factor	No. of times selected as one of the four relevant factors	%
Geographical proximity	11	61%
Geographic proximity of family	1	6%
Economic resources owned	1	6%
Access grade point average from the previous year	0	0%
Extracurricular academic life	1	6%
Quality of learning/teaching process	18	100%
Prestige of the degree	16	89%
The curriculum of the degree	13	72%
Teaching / learning methodologies	15	83%
Friends influence	0	0%
Family influence	0	0%
Former or actual students information	2	11%

Figure 13: Student admission: moving away from the family home (study in EM-UMinho meant I had to leave the family home)

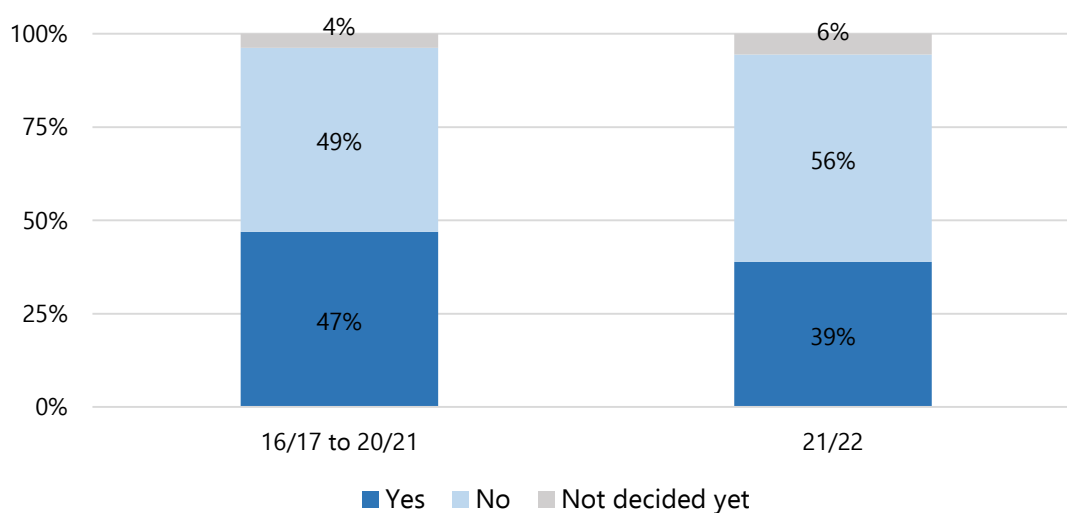


Figure 14: Student Gender

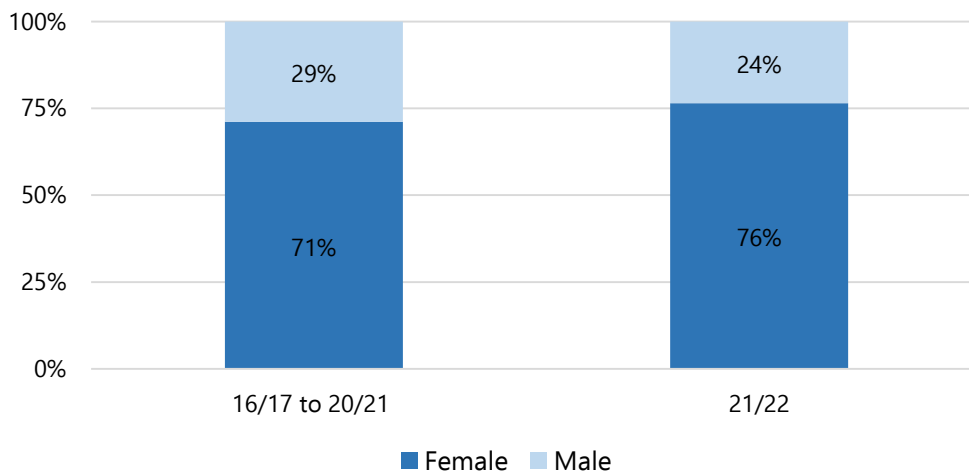


Table 11: Student's age

Forms of Admission	2016/2017 to 2020/2021					2021/2022				
	<i>n</i>	<i>M</i>	<i>SD</i>	Min	Max	<i>n</i>	<i>M</i>	<i>SD</i>	Min	Max
SAP: Graduated	82	26,63	4,2	22	38	18	28,83	7,4	22	47

Figure 15: District of residence

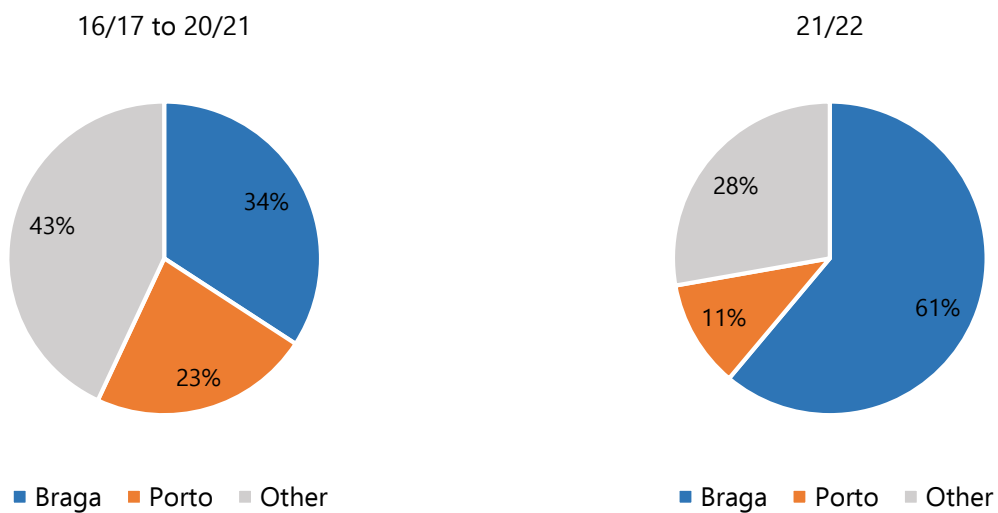


Figure 16: Type of secondary school where the student completed the 12th year

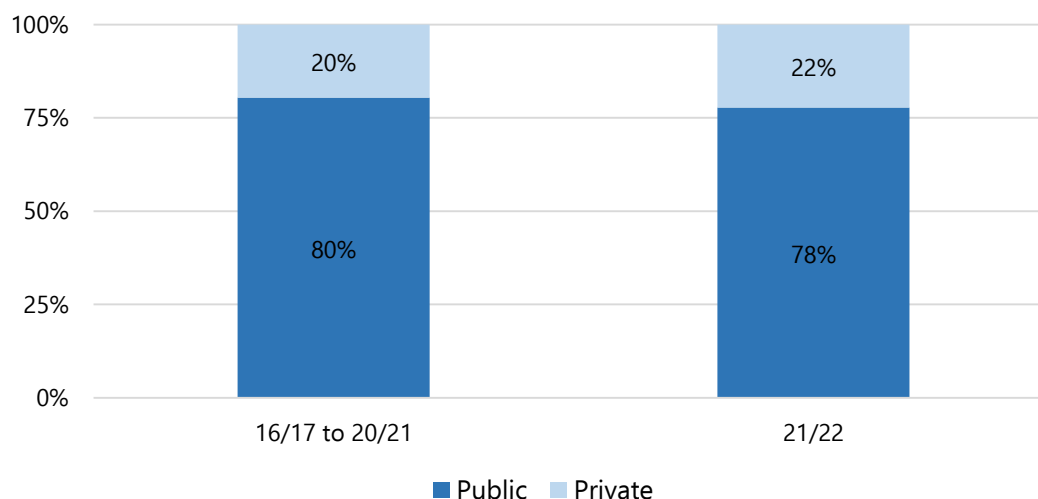


Table 12: Student’s educational background on admission

Educational background	2016/2017 to 2020/2021		2021/2022	
	<i>n</i>	%	<i>n</i>	%
Secondary school	0	0,0%	0	0,0%
Higher education – Bachelor	0	0,0%	0	0,0%
Higher education – “Licenciatura”	45	54,9%	7	41,2%
Postgraduate – Master	36	43,9%	8	47,1%
Postgraduate – PhD	1	1,2%	2	11,8%

Figure 17: Student’s employment status on admission

Academic year of admission	With no activity		Part-time worker		Full-time worker	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
2016/2017 to 2020/2021	63	81,8%	10	13,0%	4	5,2%
2021/2022	8	47,1%	8	47,1%	1	5,9%



School of Medicine

ANNUAL REPORT

2021–2022

ANNEX VII

Clinical Coordinating Groups, Supervisors, Tutors

at Affiliated Hospitals and Health Centers

University of Minho

CLINICAL COORDINATING GROUPS

Acronyms - Health Institutions:
 HB - Hospital de Braga
 HSO – Hospital Senhora da Oliveira
 ULSAM - Unidade Local de Saúde do Alto Minho

a) **The Medicine Coordination Group**

- *Jorge Correia-Pinto* (MD, PhD/ EM)
- *Damião Cunha* (MD, PhD/ EM)
- *João Cerqueira* (MD, PhD/ EM)
- *Vitor Hugo Pereira* (MD, PhD/ EM)
- *Carlos Capela* (MD, PhD/ HB)
- *Jorge Cotter* (MD, PhD/ HSO)
- *Diana Guerra* (MD/ ULSAM)

b) **The Woman, Mother and Child Health Coordination Group**

- *Cristina Nogueira-Silva* (MD, PhD/ EM)
- *Bárbara Ribeiro* (MD/ HB)
- *Luísa Cardoso* (MD/ HB)
- *Almerinda Pereira* (MD/ HB)
- *Ricardo Santos* (MD/ HSO)
- *Elsa Pereira* (MD/ HSO)
- *Cláudia Tavares* (MD / HSO)
- *Paula Pinheiro* (MD/ ULSAM)
- *Idalina Maciel* (MD/ ULSAM)

c) **The Surgery Coordination Group**

- *Jorge Correia-Pinto* (MD, PhD/ EM)
- *João Espregueira Mendes* (MD, PhD/ EM)
- *Estêvão Lima* (MD, PhD/ EM)
- *Sandra Martins* (MD, PhD/ HB, EM)
- *Costa Pereira* (MD/ HB)
- *Carlos Alegria* (MD/ HB)
- *João Reis* (MD/ HSO)
- *Luís Dias* (MD/ HB)
- *Filipa Moreira* (MD/ HB)
- *Alberto Midões* (MD/ ULSAM)
- *Fernando Vaz* (MD/ HB)
- *Fernando Faria Correia* (MD, PhD/ HB)

- *Carla Rolanda* (MD, PhD/ HB, EM)
- *José Cotter* (MD, PhD/ HSO, EM)
- *Luís Lopes* (MD, PhD/ HB, EM)

d) *The Community Health and Family Medicine Coordination Group*

- *João Cerqueira* (MD, PhD/ EM)
- *Cláudia Bulhões* (MD, Family Medicine/ EM)
- *Rui Macedo* (MD, Family Medicine/ ACES Cávado I - Braga)
- *Rita Pinheiro* (MD, Family Medicine/ ACES Cávado II - Gerês/Cabreira)
- *Raul Borges* (MD, Family Medicine/ ACES Cávado III - Barcelos/Esposende)
- *António Miguelote* (MD, Family Medicine/ ACES Alto Ave - Guimarães / Vizela / Terras de Basto)
- *Frederico Salgado* (MD, Family Medicine/ ACES Ave Famalicão)
- *Lurdes Matos* (MD, Family Medicine/ ULSAM)

HOSPITAL SUPERVISORS

Acronyms - Health Institutions:
HB - Hospital de Braga
HSO - Hospital Senhora da Oliveira
ULSAM - Unidade Local de Saúde do Alto Minho

	HB	HSO	ULSAM
Introduction to Clinical Medicine			
Internal Medicine	Francisco Nunes Gonçalves	Jorge Cotter	Diana Guerra
Introduction to Medical Practice			
Internal Medicine	Francisco Nunes Gonçalves	Jorge Cotter	Diana Guerra
Pneumology	Lurdes Ferreira	Maria Manuel Figueiredo	Elena Lombardia
Infectious Diseases	Alexandre Carvalho	Jorge Cotter	Diana Guerra
Clinical Practice and Academic Profile 1			
Internal Medicine	Francisco Nunes Gonçalves	Jorge Cotter	Diana Guerra
Cardiology	Adília Rebelo	António Lourenço	Carla Costa Dias; Carlos Letra Mateus
Endocrinology	Olinda Marques	Jorge Cotter	Diana Guerra
Nephrology	António Ramalheiro	Jorge Cotter	Diana Guerra
Dermatology	Celeste Brito	Olga Pereira	—
Hemato-oncology	Rui Nabiço	Camila Coutinho	Diana Guerra
Immuno-Hemotherapy	António Marques	—	—
Clinical Practice and Academic Profile 2			
Gynaecology	Bárbara Ribeiro	Ricardo Santos	Paula Pinheiro
Obstetrics	Lúisa Cardoso	Elsa Pereira	Paula Pinheiro
Paediatrics	Almerinda Pereira	Cláudia Tavares	Idalina Maciel
Clinical Practice and Academic Profile 3			
General Surgery	Costa Pereira, Sandra Martins	João Lima Reis	Alberto Midões
Urology	Mário Cerqueira	Preza Fernandes	Eurico Maia
Ophthalmology	Fernando Vaz; Fernando Faria Correia	António Fernandes	Sérgio Azevedo
ORL	Lúís Dias; Filipa Moreira	Rui Fonseca	Francisco Pereira
Orthotraumatology	Pedro Varanda	Carlos Vilela	Miguel Leal
Neurosurgery	Carlos Alegria, Rui Almeida	—	—
Gastroenterology	Carla Rolanda	José Cotter	Lúís Lopes
Clinical Practice and Academic Profile 4			
Neurology	Fátima Almeida	Lurdes Rodrigues	Sandra Perdigo
Psiquiatry	António Sousa Cepa	Lúís Fonseca	Anibal Fonte
Emergency	José Mariz	Pedro Cunha	Rogério Silva
Physical Medicine and Rehabilitation	Fátima Pereira	Bárbara Cruz	Fernando Balão
Hospital Residencies – Final Training			
Internal Medicine	Francisco Nunes Gonçalves	Jorge Cotter	Diana Guerra
Gynaecology	Bárbara Ribeiro	Rui Miguelote	Paula Pinheiro
Obstetrics	Lúisa Cardoso	Rui Miguelote	Paula Pinheiro
Paediatrics	Almerinda Pereira	Cláudia Tavares	Idalina Maciel
Mental Health	António Sousa Cepa	Lúís Fonseca	Anibal Fonte
Surgery	Costa Pereira, Sandra Martins	João Lima Reis	Alberto Midões

HEALTH CENTRE SUPERVISORS

Acronyms - Health Institutions:
ACES – Agrupamento de Centros de Saúde
ULS – Unidade Local de Saúde

Area	Supervisor
ACES do Cávado I – Braga	Rui Macedo
ACES do Cávado II – Gerês/Cabreira	Rita Pinheiro
ACES do Cávado III – Barcelos/Esposende	Raúl Borges
ACES do Alto Ave – Guimarães/Vizela/Terras de Basto	António Miguelote Castro
ACES do Ave – Famalicão	Frederico Salgado
ULS do Alto Minho	Lurdes Matos

HOSPITAL TUTORS

Acronyms - Health Institutions:
HB - Hospital de Braga
HSO - Hospital Senhora da Oliveira
ULSAM - Unidade Local de Saúde do Alto Minho

INTRODUCTION TO CLINICAL MEDICINE

HB	HSO	ULSAM
Internal Medicine	Internal Medicine	Internal Medicine
Ana Sá	Ana Luísa Campos	Alexandra Esteves
Carla Maravilha	Carlos Fernandes	Ana Rita Cambão
Guilherme Gomes	Daniela Casanova	Anabela Brito
Ilídio Brandão	David Paiva	Duarte Silva
Inês Gonçalves	Elisa Torres	Luciana Sousa
Isabel Silva	Emília Lopes	Manuel Ferreira
Joana Sotto Mayor	Gabriela Pereira	
Luísa Pinto	Glória Alves	
Margarida Monteiro	Helena Sarmento	
Maria do Céu Rodrigues	Magda Costa	
Maria João Regadas	Mariana Formigo	
Narciso Oliveira	Sara Freitas	
Olinda Sousa		
Rosário Araújo		

INTRODUCTION TO MEDICAL PRACTICE

HB		
Internal Medicine	Pneumology	Infectious Diseases
Ana Rita Marques	Antónia Galego	Cristina Ângela
Carla Maravilha	Diana Pimenta	Joana Alves
Cindy Tribuna	Eva Padrão	Teresa Pimentel
Dra Maria João Regadas	Joana Lages	
Dra Vânia Gomes	João Cruz	
Guilherme Gomes	Maria João	
Ilídio Brandão	Raquel Pereira	
Isabel Silva	Raquel Pereira	
Joana Sotto Mayor	Rui Rolo	
Luísa Pinto		
Manuela Vasconcelos		
Maria Céu Rodrigues		
Marina Alves		
Narciso Oliveira		
Olinda Sousa		
Rosário Araújo		
Sofia Caridade		

Sofia Esperança		
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HSO		ULSAM
Internal Medicine & Infectious Diseases	Pneumology	Internal Medicine, Infectious Diseases & Pneumology
Ângela Almeida	António Costa	Ana Rita Cambão
Carlos Fernandes	Catarina Guimarães	Anabela Brito
Daniela Neto	Duarte Araújo	António Ferreira
Elisa Torres	Dulce Apolinário	Duarte Silva
Helena Sarmiento	Hans Dabó	Joana Urbano
Margarida Rocha	Nuno China	Manuel Ferreira
Mariana Formigo	Pedro Brito	
Marta Cunha		
Olinda Miranda		

CLINICAL PRACTICE AND ACADEMIC PROFILE 1

HB					
Internal Medicine	Cardiology	Endocrinology	Nephrology	Dermatology	Hemato-oncology
Ana Isabel Oliveira	Alberto Salgado	Adriana Lages	Ana Branco	Ana Paula Vieira	Ana Daniela
Ana Rita Marques	António Gaspar	Catarina Machado	Ana Catarina	Catarina Araújo	Marques
Carla Maravilha	Carina Arantes	Catarina Matos	António	Cristiana Macedo	António Marques
Cindy Tribuna	Carlos Braga	Margarida Monteiro	Ramalheiro	Dra Joana Gomes	Catarina Portela
Domingos Sousa	Catarina Quina	Maria Joana Santos	Bárbara Ribeiro	Marianlie Navarro	Diana Freitas
Guilherme Gomes	Catarina Vieira	Maria Lopes Pereira	Carlos Soares	Teresa Pereira	Elisabete Couto
Ilídio Brandão	Fernando Mané	Marta Alves	Joana Medeiros		Filipa Pereira
Isabel Silva	Nuno Antunes	Sara Lopes	Joana Rocha		Joana Cunha
Joana Sotto Mayor	Nuno Salomé	Vera Fernandes	José Mário Bastos		Lúisa Queiroz
Lúis Dias	Pedro Azevedo		Maria João Rocha		Marta Almeida
Lúisa Pinto	Rodrigo Silva		Marina Vieira		Marta Alves
Margarida Monteiro	Rui Flores		Raquel Vaz		Ricardo Fernandes
Maria João Regadas	Sérgia Rocha		Renata Carvalho		
Marina Alves	Sónia Magalhães		Rui Costa		
Marta Mendes			Sofia Marques		
Narciso Oliveira			Sofia Rocha		
Rosário Araújo					
Sofia Caridade					
Sofia Esperança					
Teresa Pimentel					
Vânia Gomes					

HSO			
Internal Medicine, Nephrology and Endocrinology	Cardiology	Dermatology	Hemato-oncology
Ana Luísa Campos	António Lourenço	Fernando Mota	Alexandra Teixeira
Ana Mendes Costa	Filipa Almeida	Catarina Vilarinho	Carolina Carvalho
Elisa Torres	Francisco Ferreira	Olga Pereira	Ilda Faustino
Emília Lopes	Margarida Oliveira	Rosário Alves	Liliana Oliveira
Filipa Gonçalves	Mariana Tinoco		
Glória Alves	Tamara Pereira		
Helena Sarmento			
Leticia Leite			
Magda Costa			
Mariana Formigo			
Marta Cunha			
Sara Freitas			

ULSAM		
Internal Medicine, Nephrology and Endocrinology	Cardiology	Hemato-oncology
Alexandra Esteves	Carla Costa Dias	Luísa Azevedo
Ana Rita Cambão	Rui Lima	Sofia Abreu
Anabela Brito		
António Ferreira		
Duarte Silva		
Manuel Ferreira		

CLINICAL PRACTICE AND ACADEMIC PROFILE 2

HB			
Gynaecology	Obstetrics	Neonatology	Paediatrics
Bárbara Ribeiro	Alexandra Miranda	Albina Silva	Ana Antunes
Carla Monteiro	Catia Correia	Ana Rita Dias	Ângela Oliveira
Catarina Pardal	Cecilia Marques	Carla Sá	Augusta Gonçalves
Fedra Rodrigues	Dânia Ferreira	Cátia Leitão	Carla Moreira
José Pedro Coutinho	Diogo Cunha	Dinis Sousa	Cláudia Patraquim
Luis Braga	Leonor Bivar	Eduarda Abreu	Fábia Carvalho
Luis Castro	M ^o José Morais	Filipa Raposo	Fábia Carvalho
Nuno Barros	Neusa Teixeira	Joana Teixeira	Filipa Neiva
Pedro Enes	Rita Medeiros	José Miguel Costa	Helena Silva
		Liliana Pinheiro	Henedina Antunes
		Marta Alves	Joana Macedo
		Nicole Silva	Lídia Leite

		Rita Dias Sílvia Mota Sofia S. Ferreira	Manuela Alves Margarida Morais Maria Miguel Gomes Marlene Rodrigues Marta Silva Sandra Costa Sofia Martins Susana Carvalho Teresa Pontes
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HSO			
Gynaecology	Obstetrics	Neonatology	Paediatrics
Alexandra Meira	Carla Duarte	Alexandra Pires Pinto	Alícia Rebelo
Filipa Brás	Cátia Ferreira	Andreia Alexandra	Andreia Lopes
Horácio Azevedo	Cláudia Miranda	Alves Martins	Armandina Neto
Hugo Barros	Cláudia Pinto	Francisca Araújo	Bárbara Pereira
Joana Nunes	Elsa Pereira	Francisca Calheiros	Catarina Magalhães
Luísa Machado		Trigo	Cláudia Tavares
Pedro Oliveira		Maria João Aguiar de	Diana Rita Oliveira
Ricardo Santos		Azevedo Vieira	Isolina Aguiar
Rita Ladeiras		Sara Alexandra	Marta Santalha
Sara Paiva		Monteiro Cunha	Miguel Salgado
Sofia Dantas			Sofia Vasconcelos
Vanessa Silva			Susana Soares
			Teresa São Simão

ULSAM		
Gynaecology / Obstetrics	Neonatology	Paediatrics
Avelina Santos	Carla Dias	Ana Vaz
Domingos Ribeiro	Dalila Rocha	Catarina Sousa
João Pedro Prata	Emília Monteiro	Cláudia Lemos
João Pedro Silva	Isabel Soro	Hugo Rodrigues
Mariana Alves		Inês Magalhaes
Marina Gomes		Joana Pires
Rita Neiva		Mariana Branco
Sandra Ferreira		Mariana Costa
Sofia Cardoso		Pedro Marinho
Soraia Cunha		Sandra Ferraz
		Sandrina Martins
		Sara Paulina
		Sofia Miranda
		Suzana Figueiredo
		Vera Gonçalves

CLINICAL PRACTICE AND ACADEMIC PROFILE 3

HB			
General Surgery	Urology	Ophthalmology	ORL
Carlos Veiga	Ana Sofia	Carlos Cruz	António Lima
Charlene Viana	Andreia Cardoso	Cátia Azenha	Berta Rodrigues
Conceição Antunes	Carlos Oliveira	Christophe Pinto	Cátia Azevedo
Cristina Ribeiro	Catarina Tinoco	Cristina Freitas	Daniel Miranda
Dina Luís	Emanuel Dias	José Carlos	Fernando Mar
Fernanda Nogueira	João Nuno Torres	Mendes	Filipa Moreira
Fernando Manso	Jorge Ribeiro	Keissy Sousa	Guilherme Rios
Helena Marques	Nuno Morais	Nuno Franqueira	Isabel Costa
Hugo Rios	Paulo Mota	Nuno Lopes	Sara Pereira
Isabel Marques	Ricardo Leão	Pedro Brito	Sérgio Vilarinho
Joaquim Costa Pereira	Ricardo Matos	Ricardo Leite	
Jorge Carrapita	Sara Anacleto	Rita Gentil	
José Pedro Pinto			
Maia Costa			
Mariana			
Mário Rui			
Milena			
Nuno Machado			
Nuno Vilela			
Olga Oliveira			
Ricardo Pereira			
Sandra Martins			
Teresa Carneiro			

HB (cont.)		
Orthotraumatology	Neurosurgery	Gastroenterology
Bruno Santos	Afonso Almeida Pinto	Ana Rebelo
Carlos Mateus	Frederica Coimbra	Ângela Rodrigues
Daniel Freitas	Hugo Pereira	Aníbal Ferreira
Eurico Bandeira	João Nogueira	Bruno Arroja
Rodrigues	Leandro Oliveira	Bruno Gonçalves
Luís Carriço	Maria João Machado	Carla Rolanda
Luís Filipe Rodrigues	Miguel Afonso E	Dalila Costa
Nuno Tavares	Filipe	João Soares
Paulo Coutinho	Nubélio Duarte	Paula Peixoto
Pedro Varanda	Pedro Ribeiro	Rita Costa
Ricardo Maia	Renata Marques	
	Ricardo Moreira	
	Rui Ramos	

HSO					
General Surgery	Urology	Ophthalmology	ORL	Orthotraumatology	Gastroenterology
Andreia Santos	Pedro Passos	Conceição Dias	Ângelo	Carlos Vilela	Bruno Rosa
Cristina Carvalho	Presa Fernandes	Joana Pires	Fernandes	Frederic Ramalho	Carla Marinho
Hugo Mesquita	Ricardo Ramires	Josefina Serino	Carlos Matos	José Fraga	Catia Arieira
João Lima Reis	Rui Versos	Maria Antónia Costa	Catarina	Marco Oliveira	Francisca Dias de
Jorge Magalhães	Vânia Grenha	Pedro Barros	Lombo	Maribel Gomes	Castro
Juliana Oliveira	Viviana Azevedo	Pedro Reimão	Francisco	Ramon Ferrero	Joana Magalhaes
Marina Oliveira		Vânia Lages	Moreira da	Rui Cerqueira	Maria João Moreira
Paula Costa			Silva	Sofia Viçoso	Marta Freitas
Ricardo Moreira			Margarida	Tiago Barbosa	Pedro Boal
Rui Pinto			Martins	Tiago Basto	Carvalho
Santos Costa			Raquel Robles		Rui Magalhaes
Sara Aleixo			Ricardo Costa		Silvia Leite
Teresa Santos			Ricardo Matos		Sofia Xavier
Vitor Costa			Rita Moura		Tiago Capela
			Rui Fonseca		Tiago Curdia
					Gonçalves
					Vitor Macedo

ULSAM					
General Surgery	Urology	Ophthalmology	ORL	Orthotraumatology	Gastroenterology
Ana Cristina	Eurico Maia	Carlos Menezes	Ana Patrícia Gomes	António Félix	Helena Ribeiro
Conceição Monteiro	Hugo Coelho		Cecília Pereira	Bruno Alpoim	Inês Cunha
Eduardo	José Leitão		Frederico Pereira	Carlos Alves	José Ramada
Vasconcelos	Pedro Cadilhe		Hugo Marcos	Carolina Oliveira	Marta Moreira
Fernando Barbosa			Maria Isabel Alvarez	Cristina Varino	Rui Castro
Francisco Fazeres			Pedro Seabra Ângelo	Elisa Rodrigues	Silvia Giestas
Jesus Ventura			Raquel Ferreira dos	Lima Rodrigues	Tarcisio Araújo
Rui Escaleira			Santos	Luís Silva	
Teresa Almeida				Maieiro Costa	
				Miguel Leal	
				Norberto Silva	
				Paulo Gonçalves	
				Pedro Sá	
				Rolando Freitas	

CLINICAL PRACTICE AND ACADEMIC PROFILE 4

HB			
Neurology	Psiquiatry	Emergency	Physical Medicine and Rehabilitation
Ana Filipa Santos	Ana Sofia Cruz	José Mariz	Fátima Pereira
Célia Machado	Beatriz Jorge		
Eduardo Freitas	Catarina Costa		
Filipa Sousa	Catarina Pedro		
Isabel Amorim	Daniela Vilaverde		
José Manuel Araújo	Joana Mesquita		
José Nuno Alves	Liliana Silva		
Leandro Marques	Mariana Mangas		
Margarida Lopes	Sara Carneiro		
Margarida Rodrigues	Sónia Azenha		
Octávia Costa			
Sofia Rocha			

HSO			
Neurology	Psiquiatry	Emergency	Physical Medicine and Rehabilitation
Ângela Silva	Luís Fonseca	Pedro Cunha	Bárbara Cruz
Maria de Lurdes	Miguel Pereira		
Rodrigues	Rosa Rodrigues		
Miguel Gago	Sara Oliveira		
Vera Espírito Santo	Sónia Simões		

ULSAM			
Neurology	Psiquiatry	Emergency	Physical Medicine and Rehabilitation
Gonçalo Cação	Daniela Brandão	Miguel Romano Ribeiro	Fernando Balão
Pedro Correia	Filipa Araújo	Rita Morais Passos	
Rosa Lobato	Joana Reis	Rogério Silva	
Sandra Perdigão	Marlene Alves		

HOSPITAL RESIDENCIES – FINAL TRAINING

HB				
Internal Medicine	General Surgery	Psychiatry	Gynaecology / Obstetrics	Paediatrics
Alexandre Carvalho	Carlos Costa	Filipa Pereira	Afonso Rocha	Albina Silva
Ana Rita da Silva Marques	Pereira	João Bessa	Cardoso Ricardo	Ana Antunes
Ana Rita Marques	Carlos Veiga	Sónia Azenha	Gabriel Borges	Ana Rita Dias
André Santa Cruz	Charlene Viana		Lúis Carvalho	Ângela Oliveira
Carla Maravilha	Conceição Antunes		Luisa Cardoso	Arnaldo Cerqueira
Cindy Tribuna	Cristina Ribeiro		Maria José Rocha	Augusta Gonçalves
Cristina Ângela	Dina Luís		Paula Serrano	Carla Ferreira
Diana Fernandes	Fernanda Nogueira			Carla Garcez
Domingos Sousa	Fernando Manso			Carla Moreira
Francisco Gonçalves	Helena Marques			Carla Sá
Guilherme Gomes	Hugo Rios			Cátia Vilas Boas
Ilídio Brandão	Jorge Carrapita			Leitão
Inês Manuel de Abreu Gonçalves	José Pedro Pinto			Cláudia Patraquim
Isabel Apolinário	Maia Costa			Diana Batista
Isabel Silva	Mariana Costa			Eduarda Abreu
Joana Alexandra Sousa	Mário Rui			Fábia Carvalho
Morais	Gonçalves			Filipa Balona
Joana Sotto Mayor	Nuno Machado			Filipa Neiva
Luísa Pinto	Nuno Vilela			Filipa Raposo
Margarida Monteiro	Olga Oliveira			Helena Silva
Maria Céu Rodrigues	Ricardo Pereira			Joana Macedo
Maria João Regadas	Sandra Martins			Joana Teixeira
Marina Alves	Teresa Carneiro			José Miguel Costa
Narciso Oliveira				Liliana Abreu
Olinda Sousa				Liliana Pinheiro
Paulo Gouveia				Manuela Alves
Rita Matos				Margarida Morais
Rosário Araújo				Maria João Magalhães
Isabel da Silva Correia				Maria Miguel Gomes
Sara Marques				Marlene Rodrigues
Sofia Caridade				Marta Alves
Sofia Esperança				Marta Silva
Teresa Pimentel				Nicole Silva
Vânia Gomes				Sandra Costa
				Sofia Martins
				Sofia Simões Ferreira
				Susana Carvalho
				Teresa Pontes
				Vera Baptista

HSO				
Internal Medicine	General Surgery	Psychiatry	Gynaecology / Obstetrics	Paediatrics
Ana Gonçalves	André Magalhães	Andreia Gonçalves	Carla Duarte	Ana Luísa Lobo
Ana Lúcia Costa	Andreia Santos	Luís Fonseca	Filipa Brás	Ângela Dias
Ana Luísa Campos	Catarina Longras	Miguel Pereira	Horácio Azevedo	Bernarda Sampaio
Carlos Fernandes	Cristina Carvalho	Rosa Rodrigues	Luísa Machado	Carla Meireles
Clarisse Neves	Hugo Mesquita	Sara Oliveira	Ricardo Santos	Cláudia Neto
Cristina Cunha	João Lima Reis		Rosa Sardinha	Joana Neves
Cristina Silva	Jorge Magalhães		Rui Miguelote	Liliana Macedo
Daniela Casanova	Juliana Oliveira			Sandra Rodrigues
David Paiva	Marina Oliveira			
Elisa Torres	Patrícia Silva			
Emília Lopes	Paula Costa			
Fernando Esculcas	Ricardo Moreira			
Filipa Gonçalves	Rui Pinto			
Glória Alves	Santos Costa			
Helena Fernandes	Sara Aleixo			
Helena Sarmiento	Teresa Santos			
Inês Ferreira	Vítor Costa			
Inês Neves				
Isabel Trindade				
Laura Castro				
Liliana Oliveira				
Magda Costa				
Margarida Rebelo				
Margarida Rocha				
Mariana Formigo				
Marta Cunha				
Nuno Carvalho				
Rosa Araújo				
Rui Fernandes				
Sandra Barbosa				
Sara Freitas				
Sílvia Nunes				
Ussumane Embaló				

ULSAM				
Internal Medicine	General Surgery	Psychiatry	Gynaecology / Obstetrics	Paediatrics
Alexandra Esteves	Ana Cristina Rodrigues	Antónia Fornelos	Andreia Miranda	Francisca Martins
Amanda Lista Rey	Conceição Monteiro	Daniela Brandão	Ângela Santos	Isabel Martinho
Ana Raquel Afonso	Eduardo Vasconcelos	Fernando Dourado	Daniela Rocha	Juliana Maciel
Ana Sofia Matos	Fernando Barbosa	Filipa Araújo	Elisabete Gonçalves	
André Calheiros	Francisco Fazeres	Joana Reis	Joana Pereira	
Martins	Jesus Ventura	Marlene Alves	Maria Rui	
Elsa Araújo	Rui Escaleira	Patrício Ferreira	Mariana Alves	
Helena Pereira	Teresa Almeida		Marina Gomes	
Irene Miranda			Sandra Ferreira	
Luís Pontes Santos			Sofia Cardoso	
Marta Sousa				
Miguel Romano				
Nuno Pardal				
Patrícia Araújo				
Pedro Pinto				
Raquel Costa				

Hospital CUF Porto
Paediatrics
Emídio Carreiro
Francisco Cunha

Hospital Santa Maria Maior (Barcelos)		
Internal Medicine	General Surgery	Paediatrics
Cristina Marques	Ana Martins	Sara Rolim
José Miguel Ferreira	Ana Franky	
	Rita Castro	

HEALTH CENTRE TUTORS

Acronyms - Health Institutions:
 ACES – Agrupamento de Centros de Saúde
 ULS – Unidade Local de Saúde

CLINICAL PRACTICE AND ACADEMIC PROFILE 5

ACES Cávado I - Braga	ACES Cávado II - Gerês/Cabreira	ACES Cávado III - Barcelos/Esposende	ACES Alto Ave - Guimarães / Vizela / Terras de Basto	ACES Ave Famalicão	ULS Alto Minho
Ana Carolina Pinheiro Amorim	Ana Catarina da Silva Ramos	Alexandra Marisa Vale Carvalho	Amparo Eiriz Macia	Ana Raquel Cunha	Cristina Maria
Ana Filipa Vilaça	Gomes Marques	Ana Catarina Marques	Ana Cristina Pereira	Ana Rita Faria	Alves Mendes
Ana Gabriela Dias	Ana Luísa Vilhena	Silva	Ana Margarida Alves	Silva Lopes	Daniela Abrantes
Pereira Capela Ribeiro	Cabral	Ana Maria Dores	Antunes Saraiva de Menezes	Hugo Miguel da Cunha Pereira	Flávio Elísio
Ana Rita Moreira	Carlos Augusto	Monteiro Marcolino	Ana Margarida Costa	Isabel Peixoto	Vasconcelos Silva
Coutinho Gonçalves	Sécio Faria	André Torres Cardoso	Ana Sofia Sande Marques	Isabel Pereira	George Dragos
André Filipe Borges	Diogo Cristiano	Andreia Filipa Lopes	Carlos Alberto Salazar	Joana Filipa	Chiriac
Fernandes	dos Santos	Fernandes	Rodrigues Oliveira	Gomes Rodrigues	Joana da Costa
André Manuel	Pereira	Catarina Oliveira	Carlos Filipe Ribeiro de	Liliana Sousa	Pacheco Araújo
Rodrigues Mesquita	Elisabete	Elena Cunha Lima	Oliveira Lemos Neves	Lísia Santos	Joana Gonçalves
Aparício Braga	Emanuela	Meireles	Cristiana Carneiro	Olenka Karolina	Maria Antónia
Carlos Rocha de Castro	Rodrigues Alves	Felix Suarez Rabunal	Daniela Marques	Mendonza Hann	Maria Antónia
Daniela Alexandra de Oliveira Pinto	Filomena	Helena Pinto Ferreira	Diana Miranda	Pedro Nuno de Almeida Silva	Bonito
Guimarães	Manuela Lopes	Joana Filipa Figueiredo	Filipa Machado	Ricardo Lima	Maria Armanda
Elsa Cristina Oliveira	Reys	Macedo	Filipe Daniel Cunha Costa	Almeida Silva	Freixo
Rodrigues	Iolanda Pereira	José Costa Faria	Graça Campos Pereira	Susana Rebelo	Mégane Almeida
Fani Eliana Sousa	Santos Mota	José Faria	Henrique Machado	Susana Vilar dos Santos	Vieira
Veiga	Joaquim Almeida	Margarida Moreira	Isabel Bastos Ferreira	Santos	Pedro Miguel
Fátima de Jesus Pina	Neves	Maria João Capitão	José Melo Marques	Vera Amaral	Alves da Silva
Gomes	Liliana Mendonça	Marta Almendra	Lara Ribeiro		Renata Arantes
Filipa Ramos	Silva Dias	Rodrigues	Luísa Pinto		Sousa
Helena Maria Pinto	Luís Pedro	Noélia Novo	Maria Antónia Faria Veiga		Silvia Amorim
Prieto Machado	Santos Sousa	Sofia Manuel Nunes	Maria de Lurdes Almeida		Sousa
Inês Magalhães Dias	Luisa Terroso	Coutinho	Miguelote Castro		
Isabel Silva	Márcia Gonçalves		Maria Fernanda Pereira		
Isabela Chorão	Maria José Lopes		Maria Teresa Santos		
Joana Correia Costa	Pedro Miguel		Ferreira Castro Laranjeiro		
Joana Soutinho	Paulino Bento		Raquel Bárbara Mendes		
José M. S. Sequeira	Pereira		Correia		
José Manuel Peixoto	Sara Isabel Félix		Susana Maria Cunha		
Pereira	Furtado		Moreira Silva Meneses		
José Manuel Pereira	Sófia Oliveira do		Basto		
Machado	Vale		Vítor Manuel Santos		
			Ferreira		

Luís Pedro Caldeira Ferreira Madalena da Conceição Rodrigues Cerqueira Pinto Manuel José Ferraz Velho Sepúlveda Mara Beatriz Lima Mello Souza Margarida Marques Maria João Macedo Maria Palmira Fernandes Carneiro Milena Nikolova Rouytcheva Nélson Campos Óscar Daniel Coelho de Barros Pedro Costa Pimenta Marinho Rosa Maria Araújo Rosana Dantas Sandra Filipa Esteves Oliveira Teresa Margarida Tomaz Fernandes Rodrigues Vera Mónica de Queiroz Peixoto					
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HEALTH CENTRE RESIDENCY – FINAL TRAINING

ACES Cávado I - Braga	ACES Cávado II - Gerês/Cabreira	ACES Cávado III - Barcelos/Esposende	ACES Alto Ave - Guimarães / Vizela / Terras de Basto	ACES Ave Famalicão	ULS Alto Minho
Adelaide Alves	Aldara Braga	Alberto Loureiro	Ana Catarina Caldas	Alexandra Reis	Ana Maria Pires
Ana Catarina Dias Oliveira	Ana Cabral Ana Margarida	Alexandra Perez Ana Ferreira	Nogueira Coelho Diana André	Bruna Fernandes Helena Oliveira	Cecília Abreu Cláudia Pereira
Ana Gabriela Ribeiro	Marques	Ana Guimarães	Henrique	Isabel Ribeiro	Daniel Ferreira
Ana Maria Carvalho Ribeiro	Barbara Pereira Cátia Silva	Ana Mota Ângela Alves	José Machado Ferreira	Pereira Lísia Santos	Kisseling Daniela Sofia Silva
Ana Maria Gomes	Hugo Gonçalves	Antero Monteiro	Margarida Costa	Lucélia Campinho	Lisboa
Ana Maria Marques Pinto	Iolanda Mota João Abreu	Benvinda Barbosa Carlos Santos	Maria José Lopes Marta Oliveira	Marta Ferreira Olenka Hahn	Emanuel Airosa Fátima Cruz

Ana Paula Lopes Gomes	João Santos	Celina Pontes	Meylem Navarro	Susana Rebelo	Joana Couceiro
Anabela Filipa Barreto Silva	Joaquim Neves	Cláudia Leite	Natércia Silva		Joana Daniela Leal Pedrosa
Ângela Mendes	Leonor Quaresma e	Daniela Costa			Joana Peixoto
Berta Catalão	Rui Garcia	Félix Rabuñal			Luis Miguel Moreira
Carlos André Rocha	Luísa Terroso	Francisco Xavier			Lurdes Matos
Castro	Manuel Marino	Helena Ferreira			Marco Fernandes
Débora Oliveira	Sandrina Costa	Joana Macedo			Maria Antónia Bonito
Dina Sofia Dantas Matos	Sara Marques	Marta Almendra			Miguel Alvarez
Fátima Costa	Tiago Cunha	Noélia Novo			Nelson Machado
Filipa Menezes		Sofia Coutinho			Nelson Rodrigues
João Pedro Cruz Araújo		Vitor Soares			Nicole Lage
Jorge Hernani Santos					Teresa Cruz
Eusébio					Virgínia Laranjeira
José Machado					
Luís Caldeira					
Madalena Cerqueira					
Manuel Sepulveda					
Manuela Leal					
Mara Souza					
Margarida Borrallheiro					
Margarida Marques					
Maria João Botelho					
Maria João Macedo					
Palmira Carneiro					
Peixoto Pereira					
Pimenta Marinho					
Sara Eduarda Marques Martins					
Silvia Gonçalves					
Susana Macedo					
Teresa Margarida					
Tomaz					
Vera Peixoto					



School of Medicine

ANNUAL REPORT

2021-2022

ANNEX VIII

Organization and Management

University of Minho

1. EM GOVERNING AND ADVISORY BODIES, SUBUNITS AND COORDINATING BOARDS

EM GOVERNING BODIES

The School's Council

The School's Council is the collegial representative body responsible for management and general coordination of the School. The School's Council meets quarterly and integrates faculty, researchers, students and staff (the present composition is presented in point 2)

The School Presidency

The School Presidency integrates the President and the Vice-Presidents of the EM and, as the Directive Board of the EM, oversees the management of the School, meeting on a weekly basis. During the period of this report the EM had a change of the member of its Presidency, the composition until 21.06.2022 was: Nuno Sousa (President); Jorge Pedrosa (Vice-President for Research); José Miguel Pêgo (Vice-President for Education); Pedro Morgado (Vice-President for Planning and External Affairs). The new Presidency started at 22.06.2022 with the following composition: Jorge Correia Pinto (President); António Salgado (Vice-President for Research); Cristina Nogueira da Silva (Vice-President for Education); Patrício Costa (Vice-President for Planning and External Affairs).

The Scientific Council

The Scientific Council is responsible for the scientific policy for the EM, namely in what concerns the general guidelines for the planning and development of research, teaching and extension activities and matters related to the recruitment and promotion of the academic staff (the present composition is in point 2).

The Pedagogical Council

The Pedagogical Council is responsible for defining and supervising the pedagogical policy of the EM undergraduate and post-graduate degree programs (the present composition is in point 2).

EM ADVISORY BODIES

The Advisory Council of the School

The Advisory Council of the School (ACS) meets every two years and its present composition is as follows.

UMinho/EM Members :

Rector of University of Minho (invited member) and the EM Presidency (Jorge Correia Pinto, António Salgado, Cristina Nogueira da Silva and Patricio Costa).

External Members:

Alistair Warren (University of Sheffield, United Kingdom); Joseph S. Gonnella (Thomas Jefferson University, United States of America); António Murta (Pathena, Portugal); Vasco Louro (Champalimaud Clinical Centre, Portugal); Claudia Schlegel (Bern School for Higher Studies in Nursing, Switzerland); President of *Administração Regional de Saúde do Norte Portugal (ARS-N), Portugal*; President of *Ordem dos Médicos, Portugal*

The external members have designated Prof. Alistair Warren as the ACS Coordinator.

The Advisory Council of the Scientific-Pedagogical Subunits

The Advisory Council of the Scientific-Pedagogical Subunits is the body that advises about the subjects involving the Scientific-Pedagogical Subunits and is composed by the coordinators of the Scientific-Pedagogical Subunits.

The School Secretary

The School Secretary coordinates all the activity of the school services and supports the School Presidency in the technical subjects. The present School Secretary is Cláudia Araújo.

EM COORDINATING BOARDS**The ICVS Directive Board**

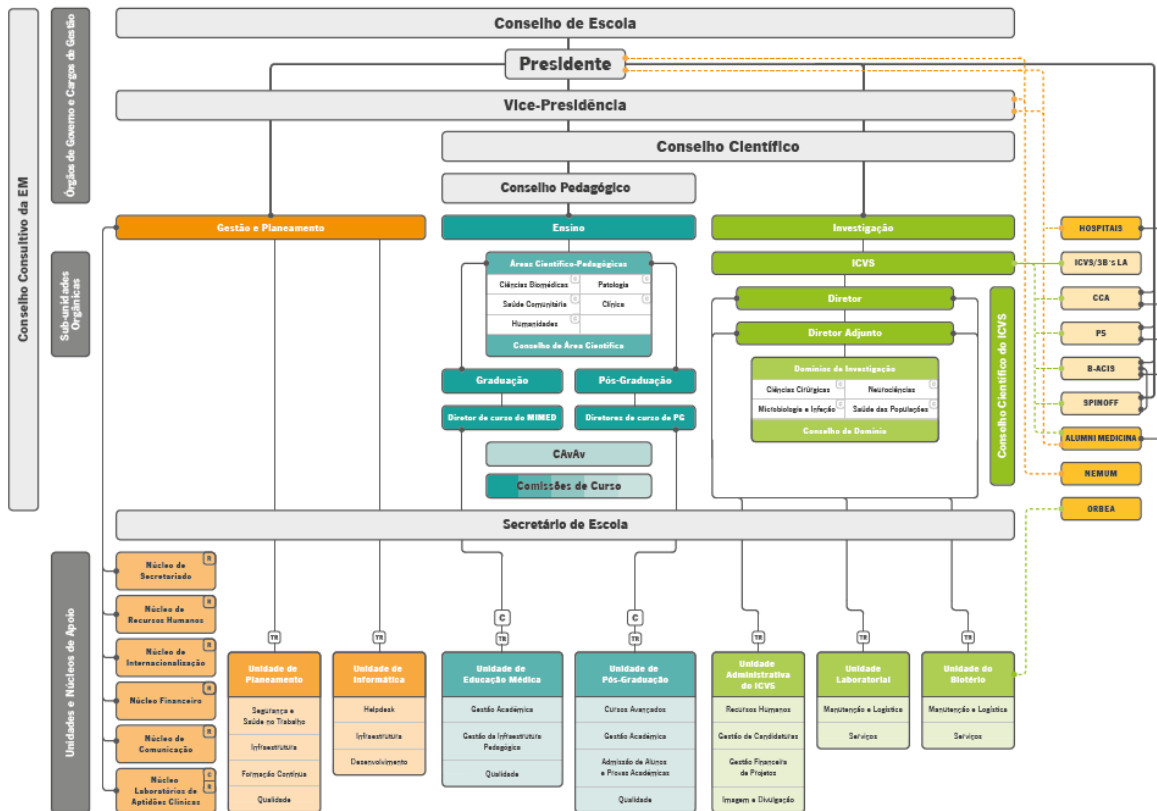
The ICVS Directive Board is the collegial body with functions of management and coordination of the ICVS. The Directive Board is responsible for ensuring the normal functioning and progress of activities and projects, promoting the articulation between the different Research Domains. The Directive Board of ICVS integrates: Jorge Correia-Pinto (ICVS Director), João Carlos Sousa (ICVS Deputy Director) until May 2022, Paula Ludovico (ICVS Pro Director), João Bessa (Coordinator of the Neurosciences Research Domain), Fátima Baltazar (Coordinator of the Surgical Sciences Research Domain), Margarida Correia-Neves (Coordinator of the recently launched Population Health Research Domain), Agostinho Carvalho (Coordinator of the Microbiology and Infection Research Domain), António Salgado (Vice-President for Research) and Jorge Correia Pinto (Invited as EM President).

The Course Committees

The Course Committees are coordinated by EM Pedagogical Council. Their main responsibilities include the daily management of the courses, promoting the coordination of curricular units, seminars, internships and other activities within each degree, and the monitoring of the development of the degree programs proposing needed adjustments to the Pedagogical Council.

The EM has five Course Committees: the Committee for the Integrated Master Degree in Medicine, the Committee for the Master Degree in Health Sciences, the Committee for the Master Degree in Assessment in Health Profession Education, the Committee for PhD Degree in Medicine, including the MD/PhD program, and the Committee for the PhD Degree in Health Sciences, including the PhD Program in Health Sciences (applied).

The Coordination of the Organic Subunits and of the Units and Support Offices



EM SUBUNITS

The EM Scientific-Pedagogical Subunits: the Scientific Areas

The Scientific Areas are the EM organizational subunits, equivalent to the departments foreseen in the Statutes of the University of Minho, which constitute the basic cells of scientific-pedagogical organization and management of resources within each consolidated area of knowledge.

The EM has five Scientific Areas, which are statutorily acknowledged: Fundamental Sciences in Medicine, Clinical Sciences, Humanities in Medicine, Health System Sciences and Interdisciplinary Development in Medicine. The duties of the Scientific Areas are to coordinate the curricular development and delivery in the corresponding areas, and assure the implementation of the adequate educational strategies and methods. The Scientific Areas agglutinate and articulate the curricular areas of the Medical Curriculum promoting the articulation between them, thus guaranteeing the overall coherence of the curriculum, paying attention to and eliminating omissions or repetitions.

The present Scientific Areas Coordinators are: Jorge Pedrosa for Fundamental Sciences in Medicine; João Cerqueira for Clinical Sciences; João Bessa for Humanities in Medicine; José Miguel Pêgo for Health System Sciences; Fernando Rodrigues for Interdisciplinary Development in Medicine.

The Curricular Units and Modules of the Integrated Master Program in Medicine and the corresponding Coordinators are listed in point 3.

EM Research Subunit: the Life and Health Sciences Research Institute (ICVS)

The ICVS is the research unit incorporated in the EM, a subunit according to the EM Statutes, in which the scientific and technological development activities of the School are developed. The ICVS has its own governing bodies, according to the rules for research units integrated in the national system of Science and Technology, namely the Director (Jorge Correia-Pinto) and the Deputy Director (João Carlos Sousa) until May 2022, the Directive Board, the Scientific Council, presided by the Director, that integrates all the PhD members of ICVS, and the External Advisory Committee.

2. PRESENT COMPOSITION OF THE SCHOOL'S COUNCIL, THE SCIENTIFIC COUNCIL AND THE PEDAGOGIC COUNCIL

(Reference date 31/07/2022)

The School's Council

João Carlos Cruz Sousa (President)
Agostinho Albérico Rodrigues Carvalho
Ana João Gomes Rodrigues
António Gil Pereira Castro
Caroline Isabel Borges Pereira
Fernando José Santos Rodrigues
João José Fernandes Cardoso Araújo Cerqueira
João Miguel Seiça Bessa Peixoto
João Pedro Sousa Silva
Patrícia Espinheira Sá Maciel
Patrícia Santos Araújo
Paula Cristina Costa Alves Monteiro Ludovico
Sandra Maria Teixeira Coutinho Pereira
Vitor Hugo Eira Pereira

Scientific Council

Jorge Manuel Nunes Correia Pinto (President)
Ana Luísa Mendanha Falcão
António José Braga Osório Gomes Salgado
Cristina Isabel Nogueira Silva
João Carlos Cruz Sousa
João José Fernandes Cardoso Araújo Cerqueira
João Miguel Seiça Bessa Peixoto
Jorge Manuel Rolo Pedrosa
José Miguel Gomes Moreira Pêgo
Maria Margarida Teles Vasconcelos Correia Neves
Patrício Ricardo Soares Costa

Pedagogic Council

Cristina Isabel Nogueira Silva (President)
Ana Catarina Barbosa Matos
Caroline Isabel Borges Pereira
Catarina Isabel da Silva Cunha
Fernando José Santos Rodrigues
João Belmiro Baptista Martins
João Brito Colaço Carvalho Belo
João José Fernandes Cardoso Araújo Cerqueira
João Miguel Seiça Bessa Peixoto
Jorge Manuel Rolo Pedrosa
José Diogo Delgado Soares
Luana Mafalda Ferreira Passos
Patrícia Espinheira Sá Maciel
Rita André Lapo Afonso Teles
Vitor Hugo Eira Pereira

3. INTEGRATED MASTER PROGRAM IN MEDICINE: CURRICULAR UNITS AND MODULES COORDINATORS (2021-2022)

A – Six-year Integrated Master Program in Medicine

1st curricular year

Curricular Unit	Coordinator
Introduction to Training in Medicine	JOSÉ MIGUEL PÊGO
Fundamentals of Medicine 1	PAULA LUDOVICO
Fundamentals of Medicine 2	JORGE PEDROSA
Academic Profile 1	PEDRO MORGADO

2nd curricular year

Curricular Unit	Coordinator
Module	
Functional and Organic Systems II	PATRICIA MACIEL
Cardiorespiratory System	
Cardiovascular System	Vitor Hugo Pereira
Respiratory System	Jorge Correia Pinto
Urinary System	Emanuel Dias
Reproductive System	Cristina Silva
Functional and Organic Systems III	JOÃO SOUSA
Nervous System	
Central Nervous System	Tiago Gil Oliveira
Peripheral Nervous System	Pedro Morgado
Endocrine System	João Sousa
Family, Society and Health I	JOHN YAPHE
Option Project II	ADHEMAR LONGATTO
Vertical Domains II	CECÍLIA LEÃO

3rd curricular year

Curricular Unit	Coordinator
Module	
Biopathology and Introduction to Therapeutics	CARLOS CAPELA
Musculoskeletal, immune and blood systems Inflammation/immunopathology	António Gil Castro
Microbiology and Infection Pathophysiological mechanisms in host pathogen / interaction	Margarida Correia-Neves
Nervous, Digestive and Endocrine Systems Genetic and environmental pathophysiology's	Alexandra Miranda
Cardiovascular, Respiratory and Urinary systems Multi-factorial diseases	Vitor Hugo Pereira

Curricular Unit	Coordinator
Module	
Introduction to Community Health	LUÍS FIGUEIREDO
Introduction to Clinical Medicine	VÍTOR HUGO PEREIRA
Family, Society and Health II	JOHN YAPHE
Vertical Domains III	CECÍLIA LEÃO

4th curricular year

Curricular Unit	Coordinator
Introduction to Medical Practice	JOÃO CERQUEIRA
Clinical Practice and Academic Profile 1	VÍTOR HUGO PEREIRA
Clinical Practice and Academic Profile 2	CRISTINA SILVA

5th curricular year

Curricular Unit	Coordinator
Module	
Health Centre Residencies II	CLÁUDIA BULHÕES
Surgery Residency	NUNO SOUSA
General Surgery	Nuno Sousa
Orthopedics	João Espregueira Mendes
Neurosurgery	João Espregueira Mendes
Urology	Estêvão Lima
Otorhinolaryngology	Nuno Sousa
Ophthalmology	Nuno Sousa
Medicine II Residency	NUNO SOUSA
Infectious Diseases	Ana Horta
Endocrinology	Nuno Sousa
Hemato-oncology	Isabel Castro
Reumatology	Carlos Capela
Nefrology	Jorge Cotter
Dermatology	Nuno Sousa
Optional Residencies	PEDRO MORGADO
From Clinical to Molecular Biology II	NUNO SOUSA
Vertical Domains V	CECÍLIA LEÃO

6th curricular year

Curricular Unit Module	Coordinator
Health Centre Residency III - Final Training	PEDRO FONTE
Hospital Residencies - Final Training	NUNO SOUSA
From Clinical to Molecular Biology III	NUNO SOUSA
Optional Project – Final Training	PATRÍCIO COSTA / TIAGO GIL OLIVEIRA

B – Four-year Graduate Entry Program in Medicine

Curricular Unit	Coordinator
Introduction to Training in Medicine	JOSÉ MIGUEL PÊGO
Foundations of Medicine 1	FÁTIMA BALTAZAR
Foundations of Medicine 2	GIL CASTRO
Academic Profile	PEDRO MORGADO

4. POST-GRADUATION PROGRAMS: CURRICULAR UNITS COORDINATORS (2021-2022)**A – Master in Health Sciences**

Curricular Unit	Coordinator
Biostatistics in Health Sciences	PATRÍCIO COSTA
Bioinformatics in Health Sciences	NUNO OSÓRIO
Epidemiology	JAIME CORREIA DE SOUSA
Laboratory Animal Sciences:	MARGARIDA CORREIA NEVES
Advanced Courses	JOANA PALHA
Laboratory Rotations	JOÃO SOUSA
Fundamentals in Genetics, Development and Neoplasia	FÁTIMA BALTAZAR
Fundamentals in Immunology and Infection	JORGE PEDROSA
Fundamentals in Neurosciences	TIAGO GIL OLIVEIRA
Research Methodologies	PATRÍCIA MACIEL
Preparation and Presentation of the Dissertation Project	PATRÍCIA MACIEL
Dissertation	PATRÍCIA MACIEL

B – Master in Assessment in Health Profession Education

Curricular Unit	Coordinator
Accreditation in Health Professions Education	NUNO SOUSA
Assessment in Health Professions Education	JOSÉ MIGUEL PÊGO
Curriculum Design in Health Professions Education	JOÃO CERQUEIRA
Dissertation	VITOR HUGO PEREIRA
Project Design, Implementation, Management and Evaluation	VITOR HUGO PEREIRA
Research Methodologies in Health Professions Education	MANUEL JOÃO COSTA
Teaching and Learning Theories in Health Professions Education	VITOR HUGO PEREIRA

C – PhD in Health Sciences

Curricular Unit	Coordinator
Biostatistics in Health Sciences	PATRÍCIO COSTA
Bioinformatics in Health Sciences	NUNO OSÓRIO
Epidemiology	JAIME CORREIA DE SOUSA
Laboratory Animal Sciences	MARGARIDA CORREIA NEVES
Advanced Courses	JOANA PALHA
Laboratory Rotations	PAULA LUDOVICO
Fundamentals in Genetics, Development and Neoplasia	FÁTIMA BALTAZAR
Fundamentals in Immunology and Infection	JORGE PEDROSA
Fundamentals in Neurosciences	TIAGO GIL OLIVEIRA
Research Methodologies	PATRÍCIA MACIEL
Congress Presentation	FERNANDO RODRIGUES
Scientific Paper	FERNANDO RODRIGUES
Preparation and Presentation of the Thesis Plan	FERNANDO RODRIGUES
Thesis	FERNANDO RODRIGUES

D – PhD in Medicine

Curricular Unit	Coordinator
Biostatistics in Health Sciences	PATRÍCIO COSTA
Bioinformatics in Health Sciences	NUNO OSÓRIO
Epidemiology	JAIME CORREIA DE SOUSA
Laboratory Animal Sciences	MARGARIDA CORREIA NEVES
Advanced Courses	JOANA PALHA
Laboratory Rotations	PAULA LUDOVICO
Fundamentals in Genetics, Development and Neoplasia	FÁTIMA BALTAZAR
Fundamentals in Immunology and Infection	JORGE PEDROSA
Fundamentals in Neurosciences	TIAGO GIL OLIVEIRA
Research Methodologies	PATRÍCIA MACIEL
Congress Presentation	TIAGO GIL OLIVEIRA
Scientific Paper	TIAGO GIL OLIVEIRA
Preparation and Presentation of the Thesis Plan	TIAGO GIL OLIVEIRA
Thesis	TIAGO GIL OLIVEIRA



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ANNEX IX

EM Academic and Non-Academic staff

University of Minho

EM ACADEMIC AND NON-ACADEMIC STAFF

Academic Year 2021-2022

(Reference date 31/07/2022)

Teaching staff

Name	Qualifications	Categoria (Status)
Maria Cecília Lemos Pinto Estrela Leão	PhD, Agregação	<i>Professora Emérita</i>
Sérgio Machado Santos	PhD	<i>Professor Emérito</i>
Joana Almeida Santos Pacheco Palha	PhD, Agregação	<i>Professora Catedrática 100%</i>
Jorge Manuel Nunes Correia Pinto	MD, PhD, Agregação	<i>Professor Catedrático 100%</i>
Jorge Manuel Rolo Pedrosa	PhD, Agregação	<i>Professor Catedrático 100%</i>
Maria Margarida Teles Vasconcelos Correia Neves	PhD, Agregação	<i>Professora Catedrática 100%</i>
Nuno Jorge Carvalho Sousa	MD, PhD, Agregação	<i>Professor Catedrático 100%</i>
Paul Scoles	MD, PhD	<i>Professor Visitante Equiparado a Prof Catedrático 40%</i>
Peter Vincent Scoles	MD, PhD	<i>Prof. Visitante Equiparado a Prof Catedrático(CRP) 40%</i>
Osborne Francisco Xavier Almeida	PhD, Agregação	<i>Professor Visitante Equiparado a Prof Catedrático 30%</i>
Jean Frédéric Michel Leo Saunière	PhD	<i>Prof. Visitante Equiparado a Prof Catedrático(CRP) 20%</i>
Jorge Pedro Santos Radeck Silva	PhD	<i>Professor Convidado Equiparado a Prof Catedrático 20%</i>
Pierre Hubert André Jean Chauvineau	Masters	<i>Professor Convidado Equiparado a Prof Catedrático 20%</i>
Fernando José Santos Rodrigues	PhD	<i>Prof. Associado com Agregação 100%</i>
Paula Cristina Costa Alves Monteiro Ludovico	PhD	<i>Prof. Associada com Agregação 100%</i>
João José Fernandes Cardoso Araújo Cerqueira	MD, PhD	<i>Prof. Associado com Agregação 100%</i>
José Miguel Gomes Moreira Pêgo	MD, PhD	<i>Prof. Associado com Agregação 100%</i>
Patrício Ricardo Soares Costa	PhD	<i>Prof. Associado com Agregação 100%</i>
António Gil Pereira Castro	PhD	<i>Prof. Associado 100%</i>
Armando Alberto Nova Pinto Almeida	PhD	<i>Prof. Associado 100%</i>
João Carlos Cruz Sousa	PhD	<i>Prof. Associado 100%</i>
João Miguel Seiça Bessa Peixoto	MD, PhD	<i>Prof. Associado 100%</i>
Manuel João Tavares Mendes Costa	PhD	<i>Prof. Associado 100%</i>
Maria Fátima Monginho Baltazar	PhD	<i>Prof. Associada 100%</i>
Patrícia Espinheira Sá Maciel	PhD	<i>Prof. Associada 100%</i>
Pedro Ricardo Luís Morgado	MD, PhD	<i>Prof. Associado 100%</i>
Cristina Isabel Nogueira Silva	MD, PhD	<i>Prof. Associada 100%</i>
Adhemar Longatto	PhD	<i>Prof. Associado Conv. 60%</i>
Rui Manuel Vieira Reis	PhD	<i>Prof. Associado Conv. 60%</i>
Carla Rolanda Rocha Gonçalves	MD, PhD	<i>Prof. Associada Conv. 20%</i>
João D. C. S. Espregueira Mendes	MD, PhD	<i>Prof. Associado Conv. 20 %</i>
Nuno Pedro G. F. Bento Borges	PhD	<i>Prof. Associado Conv. 15% (FCNA-UP/CRUP)</i>
Filipa Santos Costa Pinto Ribeiro Lacerda	PhD	<i>Prof. Auxiliar 100%</i>
Tiago Gil Rodrigues Oliveira	MD, PhD	<i>Prof. Auxiliar 100%</i>
Vítor Hugo Eira Pereira	MD, PhD	<i>Prof. Auxiliar 100%</i>
Carlos Alberto Pereira Capela	MD, PhD	<i>Prof. Auxiliar Conv. 100%</i>
John Samuel Yaphe	MD	<i>Prof. Auxiliar Conv. 60%</i>

Nadine Correia Santos	PhD	<i>Prof. Auxiliar Conv. 60%</i>
Nuno Miguel Sampaio Osório	PhD	<i>Prof. Auxiliar Conv. 60%</i>
António Manuel Melo Soares Almeida	MD, PhD	<i>Prof. Auxiliar Conv. 50%</i>
Pedro Miguel Silva Costa Afonso Teixeira	PhD	<i>Prof. Auxiliar Conv. 50%</i>
Nuno Jorge Ramos Abreu Silva Lamas	MD, PhD	<i>Prof. Auxiliar Conv. 40%</i>
Pedro Miguel Guimarães Marques Cunha	MD, PhD	<i>Prof. Auxiliar Conv. 40%</i>
Rosete Maria Amorim Novais Nogueira Cardoso	MD, PhD	<i>Prof. Auxiliar Conv. 40%</i>
Sandra Fátima Fernandes Martins	MD, PhD	<i>Prof. Auxiliar Conv. 40%</i>
Torcato Duarte Novo Meira	MD, PhD	<i>Prof. Auxiliar Conv. 40%</i>
Gabriel Miltenberger Miltenyi	MD, PhD	<i>Prof. Auxiliar Conv. 40%</i>
Alexandre Manuel Câmara Carvalho	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
Ana Maria Lacerda Morgado Fernandes Carvalho Aboim Horta	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
André Miguel Lopes Miranda	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
Cláudia Alexandra Parreira Bulhões	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
Estevão Augusto Rodrigues de Lima	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
João Luís Vaz Lima da Silva	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
Jorge de Almeida Berkeley Cotter	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
Luís Manuel Cunha Pacheco Figueiredo	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
Luís Miguel Silva Araújo Lopes	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
Rui Filipe Oliveira Miguelote	MD, PhD	<i>Prof. Auxiliar Conv. 30%</i>
Agostinho José Carvalho Santos	MD, PhD	<i>Prof. Auxiliar Conv. 20%</i>
Ana Isabel Vieira Espírito Santo	MD, PhD	<i>Prof. Auxiliar Conv. 20%</i>
Andreia Filipa Sequeira Eiras	MD, PhD	<i>Prof. Auxiliar Conv. 20%</i>
António Duarte Teixeira Afonso Rodrigues	PhD	<i>Prof. Auxiliar Conv. 20%</i>
Henedina Conceição Araújo Antunes	MD, PhD	<i>Prof. Auxiliar Conv. 20%</i>
José Almeida Berkeley Cotter	MD, PhD	<i>Prof. Auxiliar Conv. 20%</i>
Magda João Castelhana Carlos	PhD	<i>Prof. Auxiliar Conv. 20%</i>
Nuno Eduardo Sevivas Sousa	MD, PhD	<i>Prof. Auxiliar Conv. 20%</i>
Paulo Sérgio Reis Saraiva Pina	MD, PhD	<i>Prof. Auxiliar Conv. 20%</i>
Alice Augusta Macedo Miranda	PhD	<i>Prof. Auxiliar Conv. 15%</i>
André Santa Cruz João	MD	<i>Assistente Conv. 50%</i>
Carla Marina Mendonça Gonçalves	MD	<i>Assistente Conv. 50%</i>
Fábio Manuel Silva Borges	MD	<i>Assistente Conv. 50%</i>
João Carlos Braga Simões	MD	<i>Assistente Conv. 50%</i>
	MD	<i>Assistente Conv. 50%</i>
Alexandra Sofia Lopes Miranda	MD	<i>Assistente Conv. 40%</i>
Ana Célia Caetano Catarino Santos	MD	<i>Assistente Conv. 40%</i>
	MD	<i>Assistente Conv. 40%</i>
Cátia Andreia Costa Oliveira	MD	<i>Assistente Conv. 40%</i>
Cláudia Alexandra Cunha Leitão	MD	<i>Assistente Conv. 40%</i>
Dalila Amélia Amorim Costa	MD	<i>Assistente Conv. 40%</i>
Emanuel Carvalho Dias	MD, PhD	<i>Assistente Conv. 40%</i>
João Filipe Pinheiro Amorim	MD	<i>Assistente Conv. 40%</i>
Luís Filipe Monteiro Soares Dias	MD	<i>Assistente Conv. 40%</i>
Maria Miguel Sá Gomes	MD	<i>Assistente Conv. 40%</i>
Marta Catarina Ferreira Almeida	MD	<i>Assistente Conv. 40%</i>

Nuno Gabriel Silva Gonçalves	MD	<i>Assistente Conv. 40%</i>
Paulo Ricardo Oliveira Mota	MD	<i>Assistente Conv. 40%</i>
Ricardo Jorge Moreira Lopes Fernandes	MD	<i>Assistente Conv. 40%</i>
Rita Maria Santos Morais Passos	MD	<i>Assistente Conv. 40%</i>
Rita Matos Sousa	MD	<i>Assistente Conv. 40%</i>
Rui Jorge Sousa Silva	MD	<i>Assistente Conv. 40%</i>
Sara Cláudia Santos Hora Gomes	MD	<i>Assistente Conv. 40%</i>
Sofia Silva Mendes	MD	<i>Assistente Conv. 40%</i>
Vera Filipa Batista Silva Trocado	MD	<i>Assistente Conv. 40%</i>
Ana Gabriela Dias Pereira Capela Ribeiro	MD	<i>Assistente Conv. 30%</i>
Ana Miguel Gomes Simões	MD	<i>Assistente Conv. 30%</i>
Ana Rita Paiva Oliveira Silva	MD	<i>Assistente Conv. 30%</i>
Ana Vanessa Costa Rodrigues Silva	MD	<i>Assistente Conv. 30%</i>
Andreia Marlene Guimarães Nunes	MD	<i>Assistente Conv. 30%</i>
António Pedro Gonçalves Rodrigues Fonte	MD	<i>Assistente Conv. 30%</i>
Catarina Raposo Oliveira Lima	MD	<i>Assistente Conv. 30%</i>
Cláudia Patrícia Falcão Silva Alves Reis	MD	<i>Assistente Conv. 30%</i>
Eduardo Manuel Pinto Ferreira Silva Freitas	MD	<i>Assistente Conv. 30%</i>
Inês Mazedo Machado Correia	MD	<i>Assistente Conv. 30%</i>
Joana Maria Machado Silva Nuno	MD	<i>Assistente Conv. 30%</i>
Jorge Hernâni Santos Eusébio	MD	<i>Assistente Conv. 30%</i>
Maria Beatriz Azevedo Couto	MD	<i>Assistente Conv. 30%</i>
Nuno Filipe Santos Carvalho	MD	<i>Assistente Conv. 30%</i>
Nuno José Costa Oom Sousa	Masters	<i>Assistente Conv. 30%</i>
Raul Alexandre Marques Pereira	MD	<i>Assistente Conv. 30%</i>
Rogério Esteves Domingues Corga Silva	MD	<i>Assistente Conv. 30%</i>
Rui Miguel Fernandes Duarte	MD	<i>Assistente Conv. 20%</i>
Dinis Rodrigues Brito	MD	<i>Assistente Conv. 20%</i>
Francisco José Santos Botelho	MD	<i>Assistente Conv. 20%</i>
José António Briote Mariz	MD	<i>Assistente Conv. 20%</i>
Jose Miguel Silva Lopes	MD	<i>Assistente Conv. 20%</i>
Lucilia Goreti Ribeiro Pinto	Masters	<i>Assistente Conv. 20%</i>
Maria João Barbosa Silva	MD	<i>Assistente Conv. 20%</i>
Marília Cláudia Castro Ribeiro	MD	<i>Assistente Conv. 20%</i>
Miguel Romano Rodrigues Santos Ribeiro	MD	<i>Assistente Conv. 20%</i>
Pedro Domingos Cunha Gomes Pereira	MD	<i>Assistente Conv. 20%</i>
Bruno Miguel Magalhães Marques Teixeira	MD	<i>Assistente Conv. 0%</i>

Permanent Invited Professors

Damião José Gaspar Lourenço da Cunha	MD, PhD	Prof.Conv./Colaborador
Isabel Maria da Silva Castro	MD	Prof.Conv./Colaborador

Visiting Scholar

Evandro de Oliveira	MD PhD	Prof.Titular (Universidade de Campinas, São Paulo)
Gustavo Henrique Goldman	PhD	Prof.Titular (Universidade de São Paulo)
José Manuel Mendes		Prof.Conv./Colaborador
Júlio Licínio	MD PhD	(John Curtin School of Medical Research, Australian National University)

Ma-Li Wong		(John Curtin School of Medical Research, Australian National University)
Morten L. Kringsbach	PhD	(University of Oxford)
Rui Manuel Marques Fernandes da Costa	MD, PhD	(Fundação Champalimaud)

Professor Afiliado

António Jaime Botelho Correia Sousa	MD, PhD	Professor Afiliado
António Manuel Silva Duarte de Araújo	MD, PhD	Professor Afiliado
John J. Norcini Jr.	PhD	Professor Afiliado
M. Brownell Anderson	Master	Professora Afiliada
Maria José Costeira Paulo	MD, PhD	Professora Afiliada
Miguel Albino Silva Fernandes do Gago	MD, PhD	Professor Afiliado
Pedro Alexandre Leão Araújo Gonçalves Teixeira	MD, PhD	Professor Afiliado

Non-Academic Staff

Name	Qualifications	Categoria (Rank)	Service
Cláudia Sofia Campos Araújo	<i>Masters</i>	<i>Secretária de Escola</i>	School Secretary
Alice Augusta Macedo Miranda	<i>PhD</i>	<i>Técnico Superior (CRP)</i>	Animal Facility Unit and Laboratorial Unit
Amandine Marques Azevedo	<i>Graduate Degree</i>	<i>Técnico Superior</i>	Medical Education & Post-Graduation Unit
Ana Paula Salgueira Rodrigues	<i>PhD</i>	<i>Técnico Superior</i>	Clinical Skill Laboratories' Office
Ana Raquel Von Doellinger Lemos	<i>Masters</i>	<i>Técnico Superior (CRP)</i>	Medical Education & Post-Graduation Unit
Ana Sofia Silva Lima	<i>Graduate Degree</i>	<i>Técnico Superior (CRP)</i>	Laboratorial Unit and Planning Unit
Beatriz Isabel Domingues Araújo	<i>Masters</i>	<i>Técnico Superior</i>	IAO
Carla Alexandra Cardoso Rebelo	<i>Graduate Degree</i>	<i>Técnico Superior (CRP)</i>	Medical Education & Post-Graduation Unit
Célia Angelina Mota Tavares	<i>Masters</i>	<i>Técnico Superior (CRP)</i>	ICVS Administrative Unit
Cristina Santos Mesquita	<i>PhD</i>	<i>Técnico Superior (CRP)</i>	ICVS Administrative Unit
Fernando Paulo Duarte Silva	<i>Graduate Degree</i>	<i>Técnico Superior</i>	ICVS Administrative Unit
Helena Maria A. Nascimento	<i>Graduate Degree</i>	<i>Técnico Superior</i>	Financial Office
Isabel Cristina dos Santos Rocha	<i>Graduate Degree</i>	<i>Técnico Superior</i>	ICVS Administrative Unit
Isabel Maria Vieites Barbosa	<i>Graduate Degree</i>	<i>Técnico Superior</i>	Secretariat Office
João Gonçalo Magalhães Sales	<i>Graduate Degree</i>	<i>Técnico Superior (CRP)</i>	Comunication Office
Jorge Manuel S.G. Freitas	<i>Graduate Degree</i>	<i>Técnico Superior</i>	Medical Education & Post-Graduation Unit
Lucília G. Ribeiro Pinto	<i>Masters</i>	<i>Técnico Superior</i>	Laboratorial Unit

Magda João Castelhana Carlos	<i>PhD</i>	<i>Técnico Superior</i>	Animal Facility Unit and Laboratorial Unit
Maria José T. F. Tarroso Gomes	<i>Graduate Degree</i>	<i>Técnico Superior</i>	Medical Education & Post-Graduation Unit
Maria Madalena Abreu Castelo Branco	<i>Graduate Degree</i>	<i>Técnico Superior</i>	Planning Unit
Mónica Custódia C. Gonçalves	<i>Graduate Degree</i>	<i>Técnico Superior</i>	Clinical Academic Centre
Ricardo Filipe Silva Mota	<i>Graduate Degree</i>	<i>Técnico Superior</i>	Medical Education & Post-Graduation Unit
Sandra M ^a T. Coutinho P. V. Santos	<i>Masters</i>	<i>Técnico Superior</i>	Planning Unit
Sara Filipa Ferreira Almeida	<i>Masters</i>	<i>Técnico Superior (CRP)</i>	Secretariat Office Medical Education & Post-Graduation Unit
Sara Manuela Rodrigues Silva	<i>Masters</i>	<i>Técnico Superior (CRP)</i>	ICVS Administrative Unit
Vânia E. E. Azevedo Barbosa Martins	<i>Graduate Degree</i>	<i>Técnico Superior (CRP)</i>	Human Resources Office
Noé Amorim Rocha	<i>Graduate Degree</i>	<i>Especialista de Informática (CRP)</i>	Informatics Unit
Domingos Ferreira Dias	<i>Secondary Education</i>	<i>Técnico de Informática Adjunto, Nível 1</i>	Informatics Unit
Olga Maria S. Miranda Abreu	<i>Secondary Education</i>	<i>Coordenador Técnico</i>	Financial Office and Secretariat Office
Alice Maria Cunha Dias	<i>Graduate Degree</i>	<i>Assistente Técnico</i>	Human Resources Office and Financial Office
Cláudia Filipa Rodrigues Pereira	<i>Graduate Degree</i>	<i>Assistente Técnico</i>	Animal Facility Unit
Daniel José Silva Monteiro	<i>Secondary Education</i>	<i>Assistente Técnico (CRP)</i>	Planning Unit
Denise Maria F. Silva	<i>Secondary Education</i>	<i>Assistente Técnico</i>	Laboratorial Unit and Animal Facility Unit
Elsa Maria Gomes Sampaio	<i>Graduate Degree</i>	<i>Assistente Técnico (CRP)</i>	Medical Education & Post-Graduation Unit
João Filipe A. Malheiro	<i>Secondary Education</i>	<i>Assistente Técnico</i>	Planning Unit, Laboratorial Unit, Animal Facility Unit
José Carlos Teixeira da Rocha	<i>Secondary Education</i>	<i>Assistente Técnico</i>	Laboratorial Unit and Animal Facility Unit
Maria Agostinha F. Costa	<i>Secondary Education</i>	<i>Assistente Técnico</i>	Laboratorial Unit and Animal Facility Unit
Maria Celina Fernandes Barros	<i>Graduate Degree</i>	<i>Assistente Técnico</i>	Animal Facility Unit
Maria Manuela Santos Carneiro	<i>Secondary Education</i>	<i>Assistente Técnico</i>	Laboratorial Unit
Susana Isabel Vaz Santos	<i>Secondary Education</i>	<i>Assistente Técnico</i>	Animal Facility Unit
Ana Rachel Pinto	<i>PhD</i>	<i>Bolseira</i>	Medical Education & Post-Graduation Unit
Bruna Viana Cabral	<i>Masters</i>	<i>Bolseira</i>	ICVS Administrative Unit
Cláudia Fátima Escórcio Pereira	<i>Masters</i>	<i>Bolseira</i>	Laboratorial Unit and Planning Unit
Eduarda Isabel Carvalho Correia	<i>Masters</i>	<i>Bolseira</i>	Laboratorial Unit and Planning Unit
João Miguel Frias Moreira Simões Dias	<i>Graduate Degree</i>	<i>Bolseiro</i>	ICVS Administrative Unit

Liliana Ferreira Silva Santos

Masters

Bolseira

Laboratorial Unit and Planning Unit

*CRP: Private law contracts