



School of Health Sciences

ANNUAL REPORT

2012–2013

University of Minho

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1. INTRODUCTION & GENERAL OVERVIEW

The present report provides an overall view of the School of Health Sciences organisation and its main strategies and progresses in the academic year 2012-2013. The detailed data on the scientific and pedagogical activities are presented in individual attached reports.

As said on several occasions, the School of Health Sciences (ECS) is very proud of continuously succeeding in achieving our goals and mission. To be successful, we are aware that we must work collaboratively with all that build this project (students, researchers, faculty and staff) and pursue continuous improvement. In 2012-2013, we have graduated another cohort of medical students that we feel are ready to start practicing medicine in every setting and with the required standards – in this way, we achieve our goals and mission.

To accomplish the required international standards of quality in medical education, the ECS maintained its engagement in important educational and research initiatives. At the educational level, in collaboration with the National Board of Medical Examiners (NBME-USA), namely through participation in the International Foundations of Medicine (IFOM). Also, the ECS, a founding member of the European Board of Medical Assessors (EBMA), participated, together with other European medical schools, in an initiative to create a new tool for assessment of medical knowledge in Europe. The performance level of our students in both the IFOM and the Europe module was similar to that of the other participating schools, which supports the international standards of excellence reached by the ECS pedagogical programme.

The ongoing project “Simulation Center of Clinical Skills and Laboratory Scientific Skills” – initially funded by *Fundação Calouste Gulbenkian*, and presently supported by the ECS and self-generated funds - has allowed the establishment of innovative approaches for the acquisition and training of laboratory skills by medical students, which resulted in the positive improvement in the assessment of clinical skills and lab competences. More recently, we have started to expand the activities of these lab skills to residency programmes, with results that demonstrate its beneficial impact for participants and strengthen the prestige of our training programmes in other settings (e.g. medical post-graduation, where there is a clear deficit in Portugal).

We completed the second year of the new pathway, the “*Four-year Graduate Entry programme*” of the medical degree, approved by the University of Minho and by the National Accreditation of Higher Education Agency (A3ES) in April 2011. This programme is available for students holding a bachelor or “*licenciatura*” degree. So far the experience has provided positive results with students entering

the clinical years with similar success to their colleagues from the regular pathway. However, a more complete assessment will only be possible at the end of next year (the third complete year), when the pilot phase will be considered finished.

At the international level it is relevant to mention that the ECS has established several partnerships with other prestigious medical schools around the globe and has participated in several international collaborative efforts such as the Global Learning Health Opportunities (GHLO). As a result, there have been some exchanging programmes involving students and faculty members, with very positive feedback. In addition to this collaborative effort, the ECS has been asked to provide consultancy services to a new medical school in Brazil, which represents a new challenge for our project, but also an interesting revenue source. The increasing demand on the international activities led us to create an international office at the ECS.

A note also to highlight the creation of a spin-off company of the ECS dedicated to medical education services. This has largely resulted from our efforts to create an assessment software, MedQuizz, for written exams. This software was tested in 2011-2012, and applied to all written exams in 2012-2013. It proved to add value to the assessment process within the ECS, since students have greater control to monitor their progression during the exam, while teachers can rapidly identify questions with potential problems (to act in accordance before results are announced) and have an immediate detailed report on the quality of the exam and on student's performance. Of relevance, this software seems to be a very competitive tool for the market.

A medical school cannot exist without healthcare institutions. We have settled at Minho innovative partnerships with all healthcare institutions of the region (and even beyond the Minho region) that has created an excellent cooperative environment. Obviously, we continued the efforts to expand these relevant partnerships to assure the best setting for medical training and clinical care. Recently, we have expanded our nuclear clinical clerkships into new Hospitals (ULSAM) and have started new programmes with those with whom we have been affiliated from the beginning, namely at post-graduation levels and in the setting of clinical research with the creation of Clinical Academic Centers.

At a national policy level, the ECS keeps participating (and presently coordinating) the Board of Portuguese Medical Schools. In this forum, the ECS is actively supporting the proposal of a new exam for the assessment to Medical residencies (and there are very promising developments in this context), and also several other proposals such as those intended to adjust the student's assessment to Medical Schools, efforts in post-graduation activities and in the recognition of medical degrees.

Overall, these cooperative efforts have provided a coordinating action and position for the Medical Schools in Portugal.

At the post-graduation level, the ECS keeps investing in developing programmes for formal training towards Master and PhD degrees or for professional improvement. In 2012-2013, a significant number of students continued to choose the ECS for the Master Programme in Health Sciences, the PhD programme in Medicine and the PhD programme in Health Sciences, as well as for the International Post-Graduate programme of advanced courses. Of notice, our programmes were recognized by the Portuguese Foundation for Science and Technology (FCT) with specific support (scholarships and training funds) provided in the first national call for PhD programmes.

Regarding research activities, the creation of the *ICVS/3B's-PT Government Associate Laboratory* in March 2011, the first Associate Laboratory (AL) centred in the University of Minho, represented a major achievement for the ICVS and the 3B's. The *ICVS/3B's* AL focuses its research in the interface Health-Sciences/Technologies, pursuing the goal of expanding the boundaries of current knowledge and developing translational activities on innovative prophylactic, diagnostic and therapeutic solutions.

Another important milestone was the formal establishment of the Clinical Academic Centre-Braga Association (CCA-B), in January 2012, in partnership with the *Hospital de Braga*. The CCA-B infrastructures are located at both the Hospital and the ICVS and it has specific staff devoted to the development of clinical research, including clinical trials.

It is also noteworthy the sustained increase of researchers integrated in the ICVS (including PhDs), totaling 281 researchers in 2012. This was accompanied by an increase in scientific productivity within multidisciplinary Research Domains, reflected in the number of publications as well as in their average Impact Factor (IF). In this context, a significant amount of external/competitive funding was captured, not only from FCT, but also from the European FP7 and other national and international institutions/industries, involving a growing network of national and international scientific collaborations.

Due to continuous growth of the ECS, the number of academic and non-academic members has also increased. The incorporation of new members has been in general extremely positive and their integration brought added value. This integration has been achieved in parallel with the effort to improve the scientific and pedagogic quality of the staff. The ECS has continuously monitored the performance of every staff member in several academic domains (scientific, pedagogic and

managerial); a similar monitoring policy has been put forward in what regards the non-academic staff.

From the financial perspective, 2012-2013 continued to be a very difficult period for the University as a whole, and as a consequence for the Medical School. To face such demanding times, the ECS and the ICVS have significantly expanded their sources of competitive funding in parallel with a strict financial management. This has mitigated the detrimental impact of reduced budgets and assured the conditions for the continuous development and consolidation of the ECS/ICVS project.

Last, but not least, in August 2013, the ECS was granted the ASPIRE Certificate of Excellence by the Association of Medical Education in Europe (AMEE) in “Students engagement”.

2. OBJECTIVES AND STRATEGIES IN 2012-2013

The major goal established for 2012–2013 was to balance the consolidation of the ECS project with some new initiatives. Recently, we launched the new pathway, the *“Four-year Graduate Entry programme”* for the Medical Degree at Minho, specifically designed for students holding a Bachelor/“Licenciatura” degree, and the new challenges and responsibilities of ICVS as an Associate Laboratory (AL) in a partnership with the 3B’s Research Group.

To achieve these aims, we focused on the:

- consolidation of the new pathway, the *“Four-year Graduate Entry programme”*, using our previous experience of the 6-year programme in combination with new pedagogic methods and selection tools. This pathway is shorter in duration (4 years), but involves a great effort from students and faculty, including complementary nocturnal pedagogic activities;
- continuous improvement of the pedagogic and scientific quality of the ECS project;
- adjustment of the undergraduate curriculum, based on the experience of previous editions;
- strengthening of national and international collaborations for the graduate and post-graduate (Master and PhD) programmes;
- application to the FCT call for funding Doctoral Programmes;

- recruitment of new staff members (academic, non-academic and research) that bring extra-value to the project and promotion of staff development;
- strengthening and investment in the launching of ICVS/3B's AL, exploring new perspectives for the expansion of our research activities;
- development of new collaborations with health-care partners;
- development of clinical research through the CCA-B, including clinical trials in collaboration with international industrial partners;
- keeping of a continuous dialogue with the national health system (Ministry, Regional and Sub-Regional Administration, Hospitals, Health Centres) partners;
- support of our internal and external efforts to promote the best practices in medical education and research;
- resuming the process of the "animal facility" since January 2013 - although the construction has not yet started, it is planned to start by the end of the current year;
- increasing the visibility and projection of the ECS/ICVS project at the national and international levels.

3. ACTIVITIES AND ACHIEVEMENTS IN 2012-2013

Medical Degree Course

Six-year Integrated Master Programme in Medicine

A separate report (*Snapshot Medical Degree-Assessment of the Academic Year 2012-2013*), prepared by the Medical Education Unit, detailing the pedagogical activities and results undertaken in the academic year 2012-2013 is presented as Supplementary Report. A brief mention to important highlights follows.

Even without the results from September's "*Época Especial*" of examinations, the academic performances available show no striking variations from the previous year. The success rates in the curricular units of the first 3 years were always above 73%. These results are positive, in particular

when considering that in the University of Minho, the overall success rate of courses in the first 3 years is of approximately 60% (precise figures will be available in January 2014). As in the past, the highest failure rates are observed in the first year of the Medical Degree. The minimum approval rates in courses in the final 4 years is 86%, proving that, in terms of academic performance, students who successfully perform in the first years continue to thrive in the remaining of the curriculum.

In the year 2012-2013, 123 new students were admitted via the national admission process (119 under the general regime and 4 under the special regime for students from the Azores and Madeira Autonomous Regions). Additionally, 3 new students were admitted through special regimes for students from Portuguese speaking countries (n=1), athletes (n=1) and diplomat relatives (n=1). The total number of new students was therefore 126. For the national admissions process, the lowest entrance grade for the new students was 185.5 out of 200. 70% of the students admitted under the general admission regime chose ECS as their first option.

The gender balance of the new entrants in 2012-2013 was 71% female and 29% male students. Regarding the regional origin of students, 50% come from the District of Braga, 21% from the District of Porto and 29 % from other Districts of the Country.

Four-year Graduate Entry Programme in Medicine

In 2012-2013, we continued with the new pathway “Four-year Graduate Entry Programme” for graduate students. In this programme, the selection process is within the full control and responsibility of the ECS. Applicant selection was a 3-step process: (1) compliance with administrative criteria defined by the admissions process regulations, which included holding any previous degree with a final mark equal or above 14/20 points; (2) written examination of knowledge, which consisted of 100 multiple choice questions on biology, mathematics, chemistry and physics; (3) Multiple Mini-interviews (MMIs).

There were 229 applicants to the graduate entry process (13 applicants/place). The top-scoring 30 students were admitted to the MMIs. From these 18 students were admitted to the Four-year Graduate Entry Programme in 2012-2013.

Global number of undergraduate students in the medical programme

The global number of undergraduate students registered in the medical programme in the current academic year (2012-2013) was of 129 in the first year, 128 in the second year, 165 in the third year & first year Graduate Entry, 132 in the fourth year & second year Graduate Entry, 107 in the fifth

year and 80 in the sixth year. The total number of students amounts to 741 (which represents an increment of 55 students in comparison to the last report).

Certification

Throughout the entire existence of the ECS project, we have been aiming to assure the best quality of the pedagogic environment and we have applied for its international certification. In recognition of our efforts we have been recently granted the ASPIRE Certificate of Excellence by the Association of Medical Education in Europe (AMEE) in the area of “Students Engagement”.

The ASPIRE programme distinguishes excellence in medical programmes, in terms of its mission and its learning programme. The recognition of the excellence in the engagement of students at the ECS is a strong evidence of our student-centered learning approach.

Medical Students Associations: NEMUM and Alumni Medicina

NEMUM Report

NEMUM (Núcleo de Estudantes de Medicina da Universidade do Minho) is the official representative of medical students at the University of Minho. It is a non-profitable organization, composed of students working for students. This year, NEMUM had its tenth anniversary, which was duly celebrated, in a huge gala, with several guests and several different performances and sharing of wishes and ideas.

Aside from its commitment to represent the students, NEMUM is also responsible for the organization of several activities of many kinds, from scientific congresses to informal discussions, community health awareness actions, cultural and recreation activities, and scientific and clinical exchanges among countries all over the world.

Therefore, NEMUM highlights the way it relates with the ECS/ICVS, based on trust and total availability and opinion and ideas sharing from both sides. This is only possible due to the openness of the ECS and ICVS to their students and their representatives, and the true relevance of the organized activities.

In 2013, NEMUM kept on doing its great job on organizing desirable actions for their students and challenging them with new workshops and trainings on several important personal, technical and medical skills.

For example, NEMUM organized the 4th Science and Medicine Conference, dedicated to Oncology; the 9th Professor Joaquim Pinto Machado Cultural Week; several clinical competence workshops; monthly debates on medical subjects opened to general public; the 6th Minho Medical Meeting, dedicated to Minimally Invasive Techniques; 2nd Laboratory of Objective Learning, in which students were taught several advanced laboratory competences by ICVS researchers; many health screenings to the population; all the logistics necessary for the exchange of more than forty incoming and outgoing students for clinical and scientific research; the Teddy Bear Hospital; the 3rd Vital Run, a running competition at the centre of Braga; the Happy Village, a project to teach elder and isolated populations to prevent incidents and diseases.

NEMUM is constantly contacting and cooperating with other entities, namely the University of Minho Students' Association, the University of Minho Medical Alumni Association, the Portuguese Medical Students International Committee, the Portuguese Medical Association and the International Federation of Medical Students' Associations, in order to promote and improve the developed activities.

It is NEMUM's intention to continue its work and, most of all, to consolidate and to improve the manner in which it organizes itself and prioritizes the activities that are more important and relevant for the students, to complement medical students education, in social, technical, personal, cultural and scientific aspects.

Also, in 2013, NEMUM invested on a new website (www.nemum.pt), since the old one couldn't give response to students needs and it wasn't functional.

Summing up, this association is obviously important to the ECS students, and also to ECS itself, boosting the interest and curiosity of the entire community for science and learning.

NEMUM's Executive Board: Raquel Rocha Afonso (President); Rui Abrunhosa (External Vice-President); Catarina Pereira (Internal Vice-President); Gabriela Fernandes (Treasurer); Rafael de Vasconcelos (General Secretary).

The NEMUM President, Raquel Rocha Afonso

Alumni Medicina Report

Alumni Medicina (*Núcleo de Antigos Estudantes de Medicina da Universidade do Minho*) is a non-profit association that includes all alumni of the ECS (, providing a collective voice for its members. Dedicated to serve the best interests of alumni, students and faculty, our association is raising the basis to support, in a short-term, the ECS project.

2013 has been a turning point in *Alumni Medicina's* growth since it was able to go beyond the borders of ECS and its students and contact with students and alumni from other medical schools. A great effort was made in order to increase the variety of informative sessions and post-graduate courses offered reaching more people and trying to create partnerships with sponsoring entities. Therefore, we were able to organize the informative session "Medical internship: what does not come in books" as well as the following courses: "Practical course of EKG interpretation" (May 4th), "Basic theoretical-practical course of contraception" (May 25th), "Hormone therapy in specific conditions" (June 8th), "Course of Thoracic Imagiology" (June 21th). More than half of the participants in these initiatives studied in our medical school. Feedback given by the participants has been exceptional, raising the will to continue in further editions. Several other activities in the areas of child psychiatry, cardiology and urology are planned for the 2nd semester of 2013. Collaboration with ECS was maintained, helping organize the 1st "iPsiquiatria" (March 21th -23th and 1st "iNeurologia" (February 21th -23th), introductory courses targeted to 1st year interns.

2013 also marked the beginning of a closer cooperation between *Alumni* and current students through their students association NEMUM (*Núcleo de Estudantes de Medicina da Universidade do Minho*). This year, several "Medical Talks" were organized once a month, approaching several medical subjects such as "How to deal with the parents of sick children", "The business doctor" and "Excellence, perfection or giftedness?". We were also able to economically support NEMUM's 10th anniversary.

Despite the economic crisis, *Alumni Medicina* was still able to support all students with financial difficulties that searched for help. The total amount invested in our social emergency programme was similar to that in the previous year.

At the moment, efforts in fund raising are about to be made, regarding further educational support and scientific programmes at ECS.

The *Alumni Medicina* President, Pedro Morgado

Post-graduation

The ECS continues to envision post-graduation in two perspectives: that of formal training for a degree and that of voluntary professional improvement. In the Spring of 2012, enrolled for the 2012-2013 academic year, 14, 7, and 22 students, respectively for the Master Programme in Health Sciences and for the PhD Programmes in Medicine and in Health Sciences. Two aspects deserve consideration here with respect to student enrolment:

- that four medical doctors originating from Mozambique within an agreement between the University of Minho and the Mozambican Health Authorities enrolled in the Master programme;
- that four MD students formally applied for the MD/PhD programme (a programme in which MD students interrupt their medical training to do a PhD thesis, returning afterwards to complete the medical training), which represents a record in the number of MD students enrolled in the programme.

Until the end of 2013, a total of 7 students will defend their PhD theses and 15 their Master theses.

The ECS responded to the challenge of the Portuguese Science Foundation (FCT) in a national competitive call for PhD programmes. With this call, FCT intended to select top quality training programmes by providing directly to the institutions PhD scholarships and complementary funds for training activities. Within these programmes the responsibility of selecting the students is given to the institutions, which is contrary to the common practice of a national call for individual PhD scholarships. The ECS succeeded with the MD/PhD programme (in collaboration with Columbia and Thomas Jefferson Universities in the USA), for which a set of 20 PhD scholarships were granted for the next 4 editions (academic years) and with the interinstitutional PhD programme in Aging and Degeneration of Complex Biological Systems, initially launched with the support of the *Fundação Calouste Gulbenkian*, with the partnership of Faculty of Medicine (*Universidade de Coimbra*) and Faculty of Medical Sciences (*Universidade Nova de Lisboa*). For this, 36 PhD scholarships were given for the next 4 editions (academic years).

At the same time, the ECS continued to promote courses in cutting-edge subjects in medicine and in biological sciences. From January to September 2013, 23 courses counted with 437 participants, of which 70% were medical doctors. It is of notice the number of participants originating from international institutions (11%) and from national institutions outside the University of Minho (65%).

The School's intention to promote clinical research is continuing, not only by enrolling MDs in translational research projects and clinical projects, but also by continuing to involve the participation of undergraduate students in laboratory rotations within the "Option projects" and within the MD/PhD programme. In 2013, we highlight that 4 students formally enrolled in the MD/PhD programme, which is a record, and totalizes 8 students presently developing their PhD theses, adding to the two students that successfully defended in 2010 and to one other student about to defend his thesis still in 2013.

Research

As previously mentioned, the ECS research activities are developed in the context of the ICVS, as well as in articulation with the Clinical Academic Centre – Braga Association (CCAB).

The ICVS is a research structure: i) fully incorporated within the ECS; ii) integrated in the national system of science since 2003, ranked with "Excellent", the maximum grade provided by the FCT's international evaluation panels (2003 and 2008); iii) member of the PT Government ICVS/3B's Associate Laboratory since 2011; and iv) associated member of the CCAB, in a partnership with the Hospital of Braga since 2012.

The research activities in the ICVS are organized into three Research Domains: i) Microbiology and Infection; ii) Surgical Sciences and; iii) Neurosciences - which are supported by laboratorial core units.

The distinctive aspects of the ICVS as a research unit are: i) the connection to the training of physicians and to health care institutions, reflected in the clinical scope of its research; ii) the interaction with research groups in the areas of technology, particularly with the 3B's Group; iii) the quality/differentiation of human resources, focused on a small number of topics with high critical mass; iv) an integrated, flexible and collegial organization, aiming at high-quality scientific outputs.

A detailed description of the 2012 ICVS activities/achievements is reported in the ICVS Annual Report 2012 (Supplementary Reports). In this section of the ECS report, we summarise below the main achievements of 2012, as well as the most relevant progresses registered during the period January-September 2013.

ICVS/3B's-PT Government Associate Laboratory

The ICVS/3B's-PT Government Associate Laboratory, launched in 2011, continued focusing its research in the interface Health Sciences/Technologies, pursuing the goal of expanding the boundaries of current knowledge and developing translational activities on innovative prophylactic, diagnostic and therapeutic solutions. The expansion of the ICVS/3B's activities resulted in an increasing recognition of the AL, namely by international funding agencies that granted the AL with important projects. The activities of the ICVS/3B's AL resulted in the publication of 227 articles in ISI journals during 2012 - 45% in journals of the first quartile (Q) and 90% in journals of Q1 + Q2.

Clinical Academic Centre – Braga Association (CCAB)

In 2012 the ICVS has developed clinical research through the CCAB, which formalization in January represented a key achievement, including clinical trials in collaboration with international industrial partners. The CCAB combines a team of researchers, physicians and other health professionals, to which is associated a team of project managers, nurses and clinical trials coordinators/monitors. This strategy allowed the CCAB to achieve the following goals by the end of 2012: 5 clinical research projects (funded by the European Commission - FP7 and by the FCT); 23 clinical trials (ongoing or under analyses); 6 observational studies (ongoing or under analyses); 2 validation studies of medical devices. It should be highlighted that the dynamics of the CCAB productivity increased during 2013.

Infrastructural funding and construction of the “animal facility building

Although the construction of the animal facility has not yet started, the process was resumed in January 2013 and the construction of the animal facility is planned to start by the end of the current year, with the availability of the ECS to participate in a strategy of match funding together with the Rectory of the UMinho, along with negotiations with the CCDR-N/QREN for funding in programmes to be launched. The total amount required is 2 million euros for the infrastructure plus 1 million euros for scientific equipment.

Endoscopic Surgery Teaching and Research Laboratory

During 2012-2013, the ECS maintained the effort of allocating as many resources as possible to the ICVS research projects, through the support of the Research Domain activities, as well as through the reinforcement of scientific equipment and laboratories. An important achievement during 2013 was the installation of the new “Endoscopic Surgery Teaching and Research Laboratory”, which became the largest space in the Iberian Peninsula for training and research in minimally invasive surgery, and

resulted from a consortium between the ICVS with international companies of medical equipment, the Surgiris and the Karl Storz, GmbH. These companies equipped the ICVS “Endoscopic Surgery Teaching and Research Laboratory” with 10 surgical tables of training in high-definition and 3D, including an intelligent operating room: OR1™, corresponding to an investment of 2 million euros.

Scientific outputs

The ICVS pursued the strategy of implementing a sustained increase in scientific productivity within multidisciplinary Research Domains, reflected in a very important increase in the number of publications, as well as their average Impact Factor (IF). During 2012, 135 papers were published in international journals with an average IF of 4.5 (including articles with IF between 3 and 5 = 44 papers; IF between 5 and 10 = 15 papers; IF between 10 and 20 = 8 papers; IF>20 = 1 paper); and eight additional articles in journals of Medical Education and Public Health. Additionally, the work developed at the ICVS in 2012 resulted in the conclusion of ten PhD theses, including from 2 MDs. Moreover, from January 2013 until the end of the year, seven more PhD theses (four in health sciences and three in medicine) and 10 Master theses are scheduled to be concluded.

Technological outputs and Services

The ICVS also fosters collaborations between its researchers, at the forefront of Biomedical advances, and partners from Biomedical Industries. In 2012, industry-sponsored R&D was performed in areas of mutual interest between sponsors and the ICVS research domains, involving the following companies: TECNIMEDE; F. BIAL; NOVARTIS FARMA; New Textiles; BEBÉ VIDA; and BOEHRINGER.

In 2012, the ICVS continued the Molecular Diagnostics Service (SDM), by providing the genetic diagnostics of intellectual disability related disorders, with a CGH microarrays service for the screening of microdeletions and duplications of chromosome regions.

The ICVS was associated with the launching in 2012 of the Spin-off “Bn’ML- Behavioral & Molecular Lab”. The Bn’ML is based on previous specialization and extensive research activity applied to the evaluation of behavioural and neuromolecular effects of therapeutic compounds, in animal models of psychiatric and neurological diseases. The Bn’ML provides customized services for pre-clinical assessment of the therapeutic potential of new compounds, using pre-validated and reliable animal models of disease.

Awards

Bn'ML won the 1st Prize of the competition of Business Ideas – SpinUM in December, 2011 and the first prize award of the “Young Entrepreneurs” National Association (ANJE) in 2013. The international recognition of the ICVS research activities is also reflected by the granting of 9 International awards, including the Excellence in Paediatrics Award, granted by the Excellence In Paediatrics Institute (EiP).

ICVS Interaction with the Medical Degree Course

The ICVS pursued supporting the ECS's PhD and Master Programmes, as well as the MD/PhD programme with an increase in the number of applicants and preparatory laboratory rotations.

The combined teaching and research expertise of the ECS/ICVS PhD staff contributed to the successful training of medical students, promoting the interaction between different fields of biomedical research and medical education, reflected, just in 2012-2013, in the context of: (i) 46 projects in the Curricular Area “Option Projects” and; (ii) 35 rotations in the MD/PhD programme.

ICVS Staff

In 2012, it is also to highlight a sustained integration of a significant number of researchers in ICVS, including PhDs, totalizing 281 researchers [66 PhD researchers (37 ECS faculty, 4 Assistant Researchers, 1 Marie Curie and 24 Post-docs) and 197 post-graduation students (114 PhD students, 36 Master students and 47 Research Assistants)], supported by 18 members of the non-academic staff (5 in administration and 13 in the laboratories, with their salaries supported by the School).

4. ARTICULATION WITH THE NATIONAL HEALTH SYSTEM

As stated in previous reports, the ECS has set up an innovative articulating strategy with the National Health System. This strategy can be summarized as follows: a multicentered approach based on interinstitutional partnerships within the legal framework concerning the articulation between the Medical Schools and the Health Services (a legal document, *Portaria 36/2002*). The ECS is institutionally articulated, under the terms established by law, with the Regional Health Administration - North (ARS - N) and more specifically with the *Hospital de Braga, Centro Hospitalar do Alto Ave - Unidade de Guimarães, Unidade Local de Saúde do Alto Minho - Viana do Castelo/Ponte de Lima, Hospital Pedro Hispano (Matosinhos), Hospital Joaquim Urbano (Porto), Casa de Saúde do Bom Jesus (Nogueiró – Braga)* and with Health Centres in the Northern Regions of Portugal.

The results obtained with this strategy have been extremely positive (and set out as an example for other medical institutions in Portugal). Meanwhile, the cooperation with the *Hospital de Braga*, the *Centro Hospitalar do Alto Ave* and *Unidade Local de Saúde do Alto Minho* evolved into new dimensions, namely through a stronger interplay at: i) pedagogical activities, through an increased involvement of health professionals in the ECS ; ii) research activities, as evidenced by the number of attending physicians engaged in academic and research activities and by the creation of Clinical Academic Centres; and iii) assistance care level, by the number of ECS faculty members with dual affiliations with these health care institutions. Importantly, the level of commitment with academic activities has persisted, despite the increasing number of editions of the medical degree; the renovation of the clinical staff involved in academic activities has also progressed at a steady level. The quality of the clinical teaching continued to be recognized by students and physicians, and the presence of the students in the affiliated hospitals continues to be well appreciated.

University–Health Services Articulation

Under the scope of the protocols with the affiliated Hospitals, a School - Hospital Committee (*Comissão Mista Permanente*) was established with each of the Hospitals, including members from the ECS and from the Hospital, with the aim to coordinate and facilitate the cooperation between both institutions. A similar Committee was established with ARS - N for the articulation with Health Centres.

In accordance with the multicentered approach adopted for the clinical training of students, the *Hospital de Braga*, the *Centro Hospitalar do Alto Ave* and the *Unidade Local de Saúde do Alto Minho*, as well as a network of Health Centres under ARS – N, legally (*Decreto-Lei 206/2004 de 19 Agosto*) qualify all as *Health Services with University Teaching*.

The Committees are appointed to decide on matters of relevance for the coordination of activities between the ECS and the Health Services. The established Committees have adopted a Protocol that proved to be very efficient and became a central piece for the development of an efficient interinstitutional collaboration. This Protocol defines the model of cooperation (namely the Clerkship coordinating groups) in what concerns the clinical training of the medical students. These regulations cover the basic guidelines for the participation of the Health Services in the undergraduate clinical training, the competences and responsibilities of each of the participant institutions, and the term of office of the clinical supervisors and of the clinical tutors.

The Clinical Coordinating Groups, Supervisors, Tutors at Affiliated Hospitals and Health Centres are listed in Appendix III.

5. ORGANISATION AND MANAGEMENT

At present the governing bodies of the ECS are:

- The School's Council & Directive Board
- The Scientific Council
- The Pedagogical Council (Medical Course Committee)
- The Scientific Area, Curricular Units and Module Coordinators
- Coordination of Research and Postgraduate Programmes
- The Advisory Council of the School

The competences and the present composition of these bodies are presented in Appendix I.

6. HUMAN RESOURCES

Academic staff

As stated in former reports, the School is paying careful attention to the recruitment and promotion of academic staff. For that purpose, the ECS has established its own benchmarks/recommendations for academic progression, which are known by all members of the faculty (and by those that express their interest in joining the faculty); interestingly, this strategy was an anticipation of the current regulation for the Universities in Portugal. Applying such policy, one decade after the start of this project, we have witnessed the expected and sustainable progression of the faculty. Moreover, the number of potential candidates with relevant scientific qualifications is high, which certainly is a consequence of the external perception of the quality of the ECS project.

It is important to assure that the selected candidates have an adequate understanding on the institutional project and commit to contribute to the development of its specificities, namely in what concerns seven essential aspects: (i) the perspective of the programme, as a project to be constructed and developed in a participated way within the School; (ii) the student-centred learning process, in which the traditional formal lecturing loses most of its significance; (iii) the horizontal integration of the curricular contents and the modular organisation of the curriculum, with the consequent transfer of management competences from individual subjects to the coordinators of the curricular areas or modules; (iv) the relevance of students and peer assessment, permanent monitoring and quality assurance; (v) the role of the Medical Education Unit, in terms of support, coordination and monitoring of the educational objectives; (vi) the role of research, as a crucial element for a research-based learning process, and (vii) the engagement in research activities

(including submission of the research projects to the strategic guidelines and priority areas defined for the ICVS).

The Medical Education Unit has established annual faculty development programmes to target newly admitted staff and continued training for the existing staff. The programme is based on workshops, supplemented with small team activities and informal discussions that create opportunities for addressing individual issues.

In the academic year 2012-2013, the School has a faculty of 86 members (40.65 Full Time Equivalent) of which 44 are PhDs. The faculty includes: 5 Full Professors, 7 Associate Professors, 7 Assistant Professors and 67 invited teachers (2 invited Full Professor, 4 invited Associate Professors, 24 Assistant Professors and 37 Invited Teaching Assistants). Additionally, the ECS counts with 8 Visiting Professors and many other collaborators, particularly related to the Clinical Residences. The full composition of the regular teaching staff is listed in Appendix II, 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 (considered members of the Faculty during that academic year), who supported the clinical training of the students in the Hospitals and Health Centres, in a total of around 600 clinicians, are listed in Appendix III.

In terms of the faculty profile, it is important to highlight that 70% (57 out of 82) of the regular staff members are MDs.

Non-academic staff

Appendix II presents the non-academic staff members, in a total of 36, and their qualifications, position and allocation. The academic profile of the staff is above the average situation in the Portuguese higher education system (64% of the staff have a higher education degree). It also deserves to be mentioned that part of the staff is allocated to the research institute, given that the ICVS cannot hire personnel; this represents a significant effort from the ECS to guarantee the best possible conditions for the research activities in the ICVS and an important challenge for the future.

The ECS is proud to say that a great care has always been given to assure that every member of the non-academic staff can also undergo educational activities to improve their qualifications.

7. FINANCIAL RESOURCES

School Funding

Since 2000, an annual lump sum has been allocated to the ECS to cover salaries, current expenses and equipment. As mentioned before, all the possible savings were made in order to shift as many resources as possible to pedagogical and research activities. The budget allocated to the School in 2013 was of 4.71 million Euros.

ICVS Funding

We have continued the strategy of reinforcing the diversification of the ICVS funding sources.

From the FCT basal funding, the ICVS was granted with only 0.315 million euros over two years (2013 and 2014) through a RD&T Strategic Project contracted to the *Laboratório Associado ICVS/3B's*. The ability to obtain external competitive funding for research projects has increased: the budgets of the ongoing research projects, with an average duration of three years, amounted to 9.8 million euros (FCT projects – 5.4 million; FP7 projects – 2.1 million; other national and international projects – 2.3 million).

Finally, another main achievement of 2013 was the granting of a QREN/ON.2 “Integrated Programme”, in the context of the ICVS/3B's AL. This application was submitted in 2009 to QREN/ON.2 for the recruitment of Assistant Researchers, Post-Docs and Lab Technicians and has been finally approved, with start date from 01-01-2013 and end date 30-06-2015, involving a total amount of 2.47 million euros for the ICVS team. This amount is co-funded by FEDER (85%) and FCT (7.5%) and the remaining is covered by the UMinho (7.5%).

8. PLANS FOR 2014

The project of the School has been well established and progressing as planned. The major goal for the near future is to keep a permanent commitment to the benchmark of quality at the highest international level. Thus, we pursue continuous improvement, seeking to assure the best conditions to reinforce the ECS dynamism.

At the educational level we will reinforce our commitment to:

- the “Four-year Graduate Entry Programme” in Medicine. This new programme starts its third year in 2013-2014, at the end of which a complete assessment of the pilot phase will take place. There are also plans to study the possibility to expand this to an International Programme;

- adjust and implement new pedagogic methods, namely “team-based learning” in specific area of the study plans;
- proceed our commitment in the best practices of medical assessment, with the collaborative effort with the National Board of Medical Examiners (NBME-USA) and the European Board of Medical Assessors (EBMA). There is a commitment to adjust the existing, and to explore new, assessment tools that better reflect the acquisition of medical skills; these actions will be pursued in parallel with the efforts in medical education research in this topic. This will be complemented with an effort to assure the quality, and subsequent certification, of the assessment process;
- create a special team, that will assure the longitudinal acquisition, training and assessment of clinical and laboratory skills, using well-established, but also innovative, methods and tools;
- engage, even further, in the structure and organization of the pilot medical residency training programme and clinical fellowships programmes;
- establish specific actions for faculty development;
- expand the internationalization effort of the ECS project, namely through the establishment of partnerships with other prestigious medical schools around the globe, participating in several international collaborative efforts such as the Global Learning Health Opportunities (GHLO).

The construction and consolidation of the ECS pedagogical project will continue in parallel with the capacity of ICVS to perform internationally cutting-edge research, now as an Associate Laboratory in a partnership with the 3B's Research Group, which opens new challenges and perspectives for the expansion of our research activities.

We will also continue developing new collaborations with our health-care partners, particularly through Clinical Academic Centres, and also fostering new collaborations with other research partners and several industrial partners.

In addition, the major developments for 2013-2014 regarding research are:

- the finalization of the building of the ECS/ICVS animal facility;
- the formalization of a satellite research nucleus on Public Health, in the context of the ICVS structure;
- the fostering of research on Medical Education, aiming at the future establishment of an autonomous research unit (ECS research sub-unit).

These actions will, hopefully, impact on the recruitment of the best students/ researchers/ academics and also on more sustainable and diversified funding sources.

9. ECS's ADDRESS TO THE RECOMMENDATIONS OF THE ADVISORY COUNCIL OF THE SCHOOL

The former Advisory body of the School (nominated "External Advisory Committee") ceased functions in July 2009. The present Advisory Council of the School (ACS) was nominated in 2011 and the first meeting took place at ECS on 9 and 10 December 2011. The full report produced by the ACS is presented in Appendix IV. The School of Health Sciences, from its beginning, has taken seriously into consideration the recommendations from the External Advisory Committee and has addressed them explicitly in every annual report, explaining the actions and measures taken in regard to each of them. Following this tradition, which the School praises as one of the essential tools for quality assurance, the recommendations made in the last report from the Advisory Council of the School are hereby addressed point by point.

- (i) ***"The ACS is concerned that University Regulations permit students who fail the 1st year to enter the 2nd year; this rule does not favor the efficiency of the study programme nor is it in the best interests of the students and should be reviewed."***

The ECS agrees entirely with the recommendation of the ACS; yet, the ability to change the rule that allows students who fail in critical curricular units of the 1st year to enter the 2nd year is beyond our mandate. However, we would like to highlight that we have forward your recommendation to the Rector's office. Importantly, we would like to highlight that we have established, in total agreement with the students, a regimen of precedencies in the ECS, that impedes the students to move to new curricular units whenever failing in previous units that are critical for their leaning – this, that might be viewed as quite normal, is not typical in the Portuguese context.

- (ii) ***"The ACS suggests incorporating areas of BioMedical Technology and Nanomedicine into the curriculum, taking advantage of the collaborations with the 3B's Research Group of the "Laboratory Associado."***

Following your suggestion, we have incorporated some topics related to tissue engineering and nanomedicine in distinct moments of the curriculum. Yet, so far we did not implement it in structured curricular units, as we believe that it would be a better option to allow the students' revealing particular interest in the topic to do them as electives.

- (iii) ***“The Medical Education Unit (MEU) is performing an excellent job in providing evaluation and policy-related data for the Medical School, but it is advisable that it publishes more in relevant peer-reviewed journals.”***

A strong effort was made by the MEU team to increase their publications in peer-reviewed journals. In addition, we have recently shifted the strategic position of the MEU research towards an independent research sub-unit of the ECS.

- (iv) ***“The ACS suggests that the procedures for the combined MD/PhD could be made more flexible in order to recruit more students.”***

We are happy to announce that our MD/PhD programme was recently recognized by the Portuguese Funding Agency for Science and Technology (FCT) as one of the very few programmes to be funded. Therefore, we had to comply to the format of the call, but still were able to recruit more students to it (4 students in 2013). Interestingly, the number of students involved in the summer research laboratory rotations (a pre-requisite for formally apply to the MD/PhD programme) has increased significantly, which furthers supports the view that the interest for the programme is raising. Additionally, we would like to mention that we have been involved in the recently-created forum of the European MD/PhD programmes.

- (v) ***“The ACS recommends that the University develops a programme of sabbaticals for the scientists involved in this programme so that they can take research leave every 5 - years.”***

Following the recommendation of the ACS, the ECS initiated the programme of sabbaticals and in 2012/2013 2 colleagues have already benefited from that programme.

- (vi) ***“The ACS advises the School to explore the possibilities of getting financial compensation for the delivery of services to Health Institutions (e.g. Health Services research) and for the participation in clinical trials and the consultation with industry.”***

This has been a major achievement of the ECS in 2012-2013: we have not only created the Clinical Academic Center – Braga Association (in collaboration with the Hospital of Braga), where more than 20 clinical trials are currently ongoing, but we have also started some medical education consultancy services. More recently, we have created a spin-off in medical education services. All these moves proved to be interesting sources of revenue to the ECS.

- (vii) ***“The ACS strongly suggests that the School establishes a strategy to enhance the visibility of the Medical Curriculum and the ICVS both nationally and internationally.”***

We have been trying to enhance the visibility of the Medical Curriculum and of the ICVS. In what regards the Medical Curriculum, besides the regular participation in some of the most well-known medical education congresses, we have developed an effort to create a Portuguese medical education network, as well as to support the Portuguese-Spanish medical education workshops. We have also (successfully) applied for international certification (ASPIRE) as an effort to increase international visibility of the ECS project. Members of the ECS are representatives in some boards of the National Board of Medical Assessors (NBME), USA, and we are founding members of the European Board of Medical Assessment (EBMA). Besides these actions, we have several collaborative efforts with Brazilian and Italian medical schools that involve implementation of the Minho Medical curriculum and exchange programmes to students and faculty members.

Regarding the ICVS, we have pursued our efforts to increase its visibility. The results in terms of scientific production represent one side of this effort. At the national level, members of the ICVS seat now in the most significant boards related to research policy. We have also developed several initiatives with national and international organizations in the area of awareness of science. There were also several signs of recognition of the quality of the work produced at ICVS, and members of the institute play now important roles in research societies and in editorial boards of international journals. Finally, a note to highlight the relevant developments in the post-graduation area, where the ECS/ICVS international programme has consolidated its offer (generally recognized to meet the best international standards) and has also launched novel initiatives in the area of residency training programmes.

- (viii) ***“The ACS recommends that the School appoints a Fund-Raising Committee with the objective of promoting and coordinating fund raising activities in general.”***

We have asked two guests to participate in the next exercise of the assessment of the ECS by the ACS. These guests are well-known and successful entrepreneurs and they may guide us in the process of fund-raising, given their profound knowledge of the Portuguese economic milieu. Besides this assistance, we pursued our efforts in obtaining support by philanthropists (with important assets also in this area).

- (ix) ***“The continued lack of an animal house is a serious handicap to research activities that should be resolved by the competent authorities with urgency.”***

Despite of the total lack of support by the competent authorities, and as a result of our efforts in fund-raising, the ECS was able to collect the funds for the kick-off of the animal house. The works were scheduled to start in March, but were postponed by the Rector's office to October (hopefully during the next visit of the ACS, the works may already have started).

- (x) ***“The University/School should consider enlarging this Council with individuals linked to relevant enterprises/business and having important positions in public life.”***

As said in response to item viii) we have asked two new guests (both well-known and successful entrepreneurs) to join the ACS meeting.

10. FINAL REMARKS

In summary, it is our belief that the core strategies and goals of the ECS for 2012-2013 were successfully accomplished. The most prominent strengths continue to be: i) the quality of the training of medical students and the reported high standards of their performance in healthcare institutions as physicians; ii) the quality of the research activities ongoing at ICVS, now as an Associate Laboratory; and iii) the innovative post-graduation activities. Such strong points have translated into a very favourable teaching and research environment at the ECS. The systematic monitoring of the project by a strong and informed leadership and by continuous external evaluation continues to be the premises needed to keep the ECS on the right track.

The School's achievements were acknowledged by the Advisory Council of the School (ACS), which in its 2011 report (Appendix IV) states: *“the School can be proud of having made important achievements since its inception”* adding that, in the domain of education, the ACS was provided *“with the evidence to assert our conviction that the School is forming graduates of high quality in Medicine”*. Also, the ACS *“notes the remarkable achievement of the Research Institute that is integrated in the School (ICVS)”*.

Certainly the success of the ECS project has only been possible by combining the appropriate mixture of competence, enthusiasm, commitment and team spirit. To all that have contributed to the ECS, we express our gratitude and assure that we will pursue, with the same enthusiasm, our mission.



School of Health Sciences

ANNUAL REPORT

2012–2013

APPENDIXES

University of Minho



School of Health Sciences

APPENDIX I

ORGANISATION AND MANAGEMENT

University of Minho

ORGANISATION AND MANAGEMENT

1. ECS GOVERNING BODIES - COMPETENCES

1.1. The School's Council & Directive Board

The School's Council is the collegial representative body of the School being responsible for the School's management and general coordination. The School's Council integrates the President of the School, who presides, and meets quarterly.

The School has also set up a **Directive Board** that meets on a weekly basis, in order to oversee the day-to-day management of the School.

1.2. The Scientific Council

The scopes of the Scientific Council include the scientific policy for the ECS, 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.

1.3. The Pedagogical Council (Medical Course Committee)

The main competences of the Pedagogical Council are the overview of the normal operation of the undergraduate medical degree programme and the continuous review of the curriculum. The committee also scrutinizes the actions taken as a result of the recommendations from the External Advisory Committee.

The Committee obeys to the University of Minho's regulations concerning Pedagogical Councils, with the specific adaptations required by the integrated curricular organisation and also by the structural organization into phases.

1.4. The Scientific Areas, Curricular Units and Module Coordinators

The "Scientific Area" was elected as an ECS organizational sub-unit, within the University of Minho. The duties of the Scientific Areas are to coordinate the curricular development and delivery in the corresponding areas, and assure an implementation of the adequate educational strategies and methods. The Scientific Areas agglutinate and articulate the curricular areas in each phase of the

Medical Curriculum promoting the articulation between the phases, thus guaranteeing the overall coherence of the curriculum, paying attention to and eliminating omissions or repetitions. With the intention of strengthening the role of Scientific Areas Coordinators, they are elected by peers in the Scientific Area.

The present Scientific Areas within the ECS are:

- Biomedical Sciences
- Pathology
- Community Health
- Clinics

1.5. Research and Postgraduate Programmes

The ICVS has its own governing bodies, according to the rules applying to the research units integrated in the national system of Science and Technology. The Director of the Institute liaises with the Scientific Council.

The Coordination of the postgraduate programmes on Health Sciences oversees the whole postgraduate activities within the ECS.

The present Director of ICVS and the Coordinators of Research and of Postgraduate Programmes are listed in point 2. The coordinators of the different Post-Graduation courses are listed in Post-Graduation Report 2012-2013 (Supplementary Reports).

1.6. The Advisory Council of the School

The present Advisory Council of the School (ACS) was nominated in 2011 and is expected to meet every two years.

2. ECS GOVERNING BODIES – PRESENT COMPOSITION

2.1. The School's Council & Directive Board

School's Council

Cecília Leão (President)
 Jorge Pedrosa
 Jaime Sousa
 Joana Palha
 Nuno Sousa
 Paula Ludovico
 Fernando Rodrigues
 Manuel João Costa
 António Salgado
 Margarida Saraiva
 José Carlos Henriques
 Representatives of students of Medical Degree Course (2)
 Representatives of students enrolled in the programs of the 2nd and 3rd cycles (1)

Directive Board

Cecília Leão (President)
 Nuno Sousa (Vice-President, Director of the Medical Degree)
 Jorge Pedrosa (Vice-President, Director of ICVS/3B's)

2.2. Scientific Council

Cecília Leão (President)
 António Gil Castro
 Fernando Rodrigues
 Joana Palha
 Jorge Correia Pinto
 Jorge Pedrosa
 Manuel João Costa
 Margarida Correia Neves
 Margarida Saraiva
 Nuno Sousa
 Paula Ludovico

2.3. Pedagogic Council

Academic Staff

Nuno Sousa (President)

João Cerqueira

Paula Ludovico

Jaime Correia de Sousa

Fernando Rodrigues

Jorge Pedrosa

João Bessa

Manuel João Costa

Students

João Firmino Machado (6th y)

João Louro (5th y)

Alberto Silva (4th y)

Ana Isabel Sá (3rd y)

Gerrit Gabriel Hogemann (2nd y)

Maria Inês Rebelo (1st y)

Pedro Morgado (3rd cycle), PhD student

Eduardo Gomes (3rd cycle), PhD student

2.4. Scientific Areas, Curricular Units and Module Coordinators

2.4.1. Scientific Areas/Coordinators

| <i>Scientific Area</i> | <i>Coordinator</i> |
|------------------------|------------------------|
| Biomedical Sciences | Fernando Rodrigues |
| Pathology | Jorge Pedrosa |
| Community Health | Jaime Correia de Sousa |
| Clinics | Nuno Sousa |

2.4.2. Curricular Units and Module Coordinators (2012-2013)

A – Six-year Integrated Master Programme in Medicine

| Curricular Year | Curricular Unit Module | Coordinator |
|-----------------|--|------------------------|
| 1st | Introduction to the Medical Degree | MANUEL JOÃO COSTA |
| | Molecules and Cells | FERNANDO RODRIGUES |
| | From Anatomy to Cellular Physiology | Paula Ludovico |
| | Molecular Genetics Foundations | Margarida Saraiva |
| | Proliferation Differentiation Cellular and Death | Susana Pascoal |
| | Functional and Organic Systems I | ARMANDO ALMEIDA |
| | Gen. Introd. and Musculoskeletal System and Skin I | Ana Franky |
| | Gen. Introd. and Musculoskeletal System and Skin II | Tiago Gil Rodrigues |
| | Digestive System | Carla Rolanda |
| | Training in a Health Centre | JAIME CORREIA DE SOUSA |
| 2nd | Socorrismo | JOSÉ MIGUEL PÊGO |
| | Option Project I | FERNANDO RODRIGUES |
| | Vertical Domains I | CECÍLIA LEÃO |
| | Functional and Organic Systems II and III | ARMANDO ALMEIDA |
| | Circulatory and Respiratory Systems I | Jorge Correia Pinto |
| | Circulatory and Respiratory Systems II | Maria João Batista |
| | Urinary System | Hugo Almeida |
| | Reproductive System and Development, Growth and Ageing | Cristina Silva |
| | Central Nervous System | João Bessa |
| | Peripheral Nervous System | João Cerqueira |
| | Endocrine System | Fernanda Marques |
| | Option Project II | FÁTIMA BALTAZAR |
| | Vertical Domains II | CECÍLIA LEÃO |
| | Family, Society and Health I | ALEXANDRE GOUVEIA |

A – Six-year Integrated Master Programme in Medicine (cont.)

| Curricular Year | Curricular Unit Module | Coordinator |
|------------------------|--|----------------------------------|
| 3rd | Biopathology and Introduction to Therapeutics | JORGE PEDROSA |
| | General Pathology and Introd. to Pharmacology | António Gil Castro |
| | Genetics and Environment | Margarida Correia Neves |
| | Immunopathology | Fátima Baltazar |
| | Infectious Diseases | José Miguel Pêgo |
| | Introduction to Community Health | JAIME CORREIA DE SOUSA |
| | Introduction to Clinical Medicine | JOÃO CERQUEIRA |
| | Vertical Domains III | CECÍLIA LEÃO |
| | Family, Society and Health II | ALEXANDRE GOUVEIA |
| 4th | Medicine I Residence | NUNO SOUSA |
| | Maternal and Child Health Residence | JORGE CORREIA PINTO |
| | From Clinical to Molecular Biology I | FÁTIMA BALTAZAR |
| | Vertical Domains IV | CECÍLIA LEÃO |
| | Health Centre Residencies I | JAIME CORREIA DE SOUSA |
| | Option Project III | FILIPA RIBEIRO |
| | Clinical Neurosciences | JOÃO BESSA/JOÃO CERQUEIRA |
| | Neurology | João Cerqueira |
| | Psychiatry | João Bessa |
| 5th | Surgery Residence | NUNO SOUSA |
| | Medicine II Residence | NUNO SOUSA |
| | Optional Residencies | MARGARIDA CORREIA NEVES |
| | From Clinical to Molecular Biology II | FÁTIMA BALTAZAR |
| | Vertical Domains V | CECÍLIA LEÃO |
| | Health Centre Residencies II | JAIME CORREIA DE SOUSA |
| 6th | From Clinical to Molecular Biology III | FÁTIMA BALTAZAR |
| | Health Centre Residency III- Final Training | JAIME CORREIA DE SOUSA |
| | Hospital Residencies - Final Training | NUNO SOUSA |
| | Optional Project – Final Training | PATRÍCIO COSTA/MANUEL JOÃO COSTA |

B – Four-year Graduate Entry Programme in Medicine

| | |
|---|--------------------------|
| Fundamentals of Medicine | GIL CASTRO |
| MI - Metabolism | Paula Ludovico |
| M2- Circulatory | Jorge Correia-Pinto |
| M3- Respiratory | Fátima Baltazar |
| M4- Genito-urinary | Armando Almeida |
| M5- Immunology and Infection | Margarida Correia- Neves |
| M6- Nervous and Locomotor | João Bessa |
| Comunitary Health and Social Sciences and Humanities | PATRÍCIO COSTA |

2.5. Coordinators of Research and Post-graduate Programmes

Director of ICVS: Jorge Pedrosa

Director of the Post-graduation and of the MD/PhD Programme: Margarida Correia-Neves

Director of the Master Programme: Paula Ludovico

Coordinator of the International Programme of Advanced Courses 2012-2013: Paula Ludovico

2.6. Advisory Council of the School (ACS)*UMinho/ECS Members*

Rector of University of Minho (invited member)

Cecília Leão (ECS President)

Nuno Sousa (ECS Vice-President)

Jorge Pedrosa (ECS Vice-President)

External Members

Alistair Warren (University of Sheffield, United Kingdom)

Arsélio Pato de Carvalho (University of Coimbra, Portugal)

Fernando Lopes da Silva (University of Amsterdam, Holand)

Joseph S. Gonnella (Thomas Jefferson University, United States of America)

David Macfadyen (University of Edinburgh)

Peter V. Scoles (National Board of Medical Examiners)

President of *Administração Regional de Saúde do Norte Portugal (ARS-N), Portugal*

President of *Ordem dos Médicos, Portugal*

The external members have designated *Prof. Fernando Lopes da Silva* as the ACS Coordinator.



School of Health Sciences

APPENDIX II

ECS ACADEMIC AND NON-ACADEMIC STAFF

University of Minho

ECS ACADEMIC AND NON-ACADEMIC STAFF

Academic Year 2012-2013

Teaching staff

| Name | Qualifications | Categoria (Status) |
|---|--------------------|--|
| Maria Cecília L.P. Estrela Leão | PhD, Agregação | Prof. Catedrática 100% |
| Joana Almeida S. Pacheco Palha | PhD, Agregação | Prof. Catedrática 100% |
| Jorge Manuel Rolo Pedrosa | PhD, Agregação | Prof. Catedrático 100% |
| Nuno Jorge Carvalho de Sousa | MD, PhD, Agregação | Prof. Catedrático 100% |
| Jorge Manuel Nunes Correia Pinto | MD, PhD, Agregação | Prof. Catedrático 100% |
| Rui Manuel Rosário Sarmento e Castro | MD, PhD | Prof. Catedrático Conv. 30% |
| Damião José Gaspar Lourenço da Cunha | MD | Prof. Catedrático Conv./Colaborador |
| António Gil Pereira de Castro | PhD | Prof. Associado 100% |
| Armando A.N. Pinto de Almeida | PhD | Prof. Associado 100% |
| Fernando José dos Santos Rodrigues | PhD | Prof. Associado 100% |
| Manuel João Tavares Mendes da Costa | PhD | Prof. Associado 100% |
| M ^a Margarida T. de Vasconcelos C. Neves | PhD | Prof. Associada 100% |
| Patrícia Espinheira Sá Maciel | PhD | Prof. Associada 100% |
| Paula Cristina C. A. Monteiro Ludovico | PhD | Prof. Associada 100% |
| António Jaime Botelho Correia de Sousa | MD, PhD | Prof. Associado Conv. 50% |
| João D. C. S. Espregueira Mendes | MD, PhD | Prof. Associado Conv. 20% |
| Isabel Maria da Silva Castro | MD | Prof. Associada Conv./Colaborador |
| Nuno Pedro G. F. Bento Borges | PhD | Prof. Associado Conv. 15% (FCNA-UP/CRUP) |
| Filipa Santos Costa Pinto Ribeiro Lacerda | PhD | Prof. Auxiliar 100% |
| João Carlos Cruz Sousa | PhD | Prof. Auxiliar 100% |
| Maria de Fátima M. Baltazar | PhD | Prof. Auxiliar 100% |
| João José F. C. de Araújo Cerqueira | MD, PhD | Prof. Auxiliar 100% |
| João Miguel S. Bessa Peixoto | MD, PhD | Prof. Auxiliar 100% |
| José Miguel G. Moreira Pêgo | MD, PhD | Prof. Auxiliar 100% |
| Patrício Ricardo Soares Costa | PhD | Prof. Auxiliar 100% |
| Adhemar Longatto | PhD | Prof. Auxiliar Conv. 60% |
| John Samuel Yaphe | MD | Prof. Auxiliar Conv. 60% |
| Margarida Sofia da Silva Santos Saraiva | PhD | Prof. Auxiliar Conv. 60% |
| Cristina Isabel Nogueira da Silva | MD, PhD | Prof. Auxiliar Conv. 50% |
| Ana Raquel Franky Gomes Carvalho | MD, PhD | Prof. Auxiliar Conv. 40% |
| Carla Rolanda Rocha Gonçalves | MD, PhD | Prof. Auxiliar Conv. 40% |
| Maria João R. Leite Baptista | MD, PhD | Prof. Auxiliar Conv. 40% |
| Pedro Alexandre L.A.G. Teixeira | MD, PhD | Prof. Auxiliar Conv. 40% |
| Rosete M ^a Amorim N. Nogueira Cardoso | MD | Prof. Auxiliar Conv. 40% |
| Tiago Gil Rodrigues Oliveira | MD, PhD | Prof. Auxiliar Conv. 40% |
| António José Braga Osório Gomes Salgado | PhD | Prof. Auxiliar Conv. 30% |
| Estevão Augusto Rodrigues de Lima | MD, PhD | Prof. Auxiliar Conv. 30% |
| Jorge de Almeida Berkeley Cotter | MD, PhD | Prof. Auxiliar Conv. 30% |
| Luísa Alexandra Meireles Pinto | PhD | Prof. Auxiliar Conv. 30% |
| Ana João Gomes Rodrigues | PhD | Prof. Auxiliar Conv. 25% |

| | | |
|--|---------|---------------------------------|
| Fernanda Cristina G. de Sousa Marques | PhD | <i>Prof. Auxiliar Conv. 25%</i> |
| Hugo Miguel V.L. S. de Almeida | PhD | <i>Prof. Auxiliar Conv. 25%</i> |
| Nuno Miguel Sampaio Osório | PhD | <i>Prof. Auxiliar Conv. 25%</i> |
| Agostinho José Carvalho dos Santos | MD, PhD | <i>Prof. Auxiliar Conv. 20%</i> |
| Henedina da Conceição Araújo Antunes | MD, PhD | <i>Prof. Auxiliar Conv. 20%</i> |
| Maria Cláudia G. Rodrigues da Conceição | MD, PhD | <i>Prof. Auxiliar Conv. 20%</i> |
| Maria Cláudia Gomes dos Santos | PhD | <i>Prof. Auxiliar Conv. 20%</i> |
| Maria José Teixeira Costeira Paulo | MD, PhD | <i>Prof. Auxiliar Conv. 20%</i> |
| Rui Manuel Vieira Reis | PhD | <i>Prof. Auxiliar Conv. 20%</i> |
| Alexandra Sofia Lopes Miranda | MD | <i>Assistente Conv. 40%</i> |
| Ana Célia Caetano Catarino dos Santos | MD | <i>Assistente Conv. 40%</i> |
| Ana Luísa Carneiro Moraes de Sousa | MD | <i>Assistente Conv. 40%</i> |
| Aníbal Miguel de Araújo Correia Ferreira | MD | <i>Assistente Conv. 40%</i> |
| Artur Jorge Gomes Vieira | MD | <i>Assistente Conv. 40%</i> |
| Carlos Alberto Pereira Capela | MD | <i>Assistente Conv. 40%</i> |
| Cláudia Alexandra Parreira Bulhões | MD | <i>Assistente Conv. 40%</i> |
| Emanuel Carvalho Dias | MD | <i>Assistente Conv. 40%</i> |
| Hélder Novais e Bastos | MD | <i>Assistente Conv. 40%</i> |
| Isaac Leandro Campos Braga | MD | <i>Assistente Conv. 40%</i> |
| Ivo Ricardo da Silva Ferreira | MD | <i>Assistente Conv. 40%</i> |
| João F. Marques de A. Ferreira Menino | Lic. | <i>Assistente Conv. 40%</i> |
| João Moreira Pinto | MD | <i>Assistente Conv. 40%</i> |
| José António Briote Mariz | MD | <i>Assistente Conv. 40%</i> |
| Luís Manuel Cunha P. Figueiredo | MD | <i>Assistente Conv. 40%</i> |
| Nuno Jorge Ramos Abreu da Silva Lamas | MD | <i>Assistente Conv. 40%</i> |
| Paulo Ricardo Oliveira da Mota | MD | <i>Assistente Conv. 40%</i> |
| Pedro Ricardo Luís Morgado | MD | <i>Assistente Conv. 40%</i> |
| Rui Miguel Fernandes Duarte | MD | <i>Assistente Conv. 40%</i> |
| Sandra de Fátima F. Martins | MD | <i>Assistente Conv. 40%</i> |
| Sara Cláudia Santos da Hora Gomes | MD | <i>Assistente Conv. 40%</i> |
| Tiago Domingues Barbosa da Frada | MD | <i>Assistente Conv. 40%</i> |
| Vítor Hugo da Eira Pereira | MD | <i>Assistente Conv. 40%</i> |
| Alexandre Coutinho Borges Gouveia | MD | <i>Assistente Conv. 30%</i> |
| André Santa Cruz João | MD | <i>Assistente Conv. 30%</i> |
| Sara Manuela B. Marques de Oliveira | MD | <i>Assistente Conv. 30%</i> |
| Alexandre Manuel Câmara de Carvalho | MD | <i>Assistente Conv. 20%</i> |
| Ana Filipa Melo Coelho Carvalho Pimentel | MD | <i>Assistente Conv. 20%</i> |
| Ana Isabel da Silva Quelhas | MD | <i>Assistente Conv. 20%</i> |
| Ana Maria Lacerda A. Horta | MD | <i>Assistente Conv. 20%</i> |
| Ana Paula Lopes Gomes | MD | <i>Assistente Conv. 20%</i> |
| António Pedro G. Rodrigues da Fonte | MD | <i>Assistente Conv. 20%</i> |
| Ana Teresa Neves Magalhães | MD | <i>Assistente Conv. 20%</i> |
| Jean-Pierre Antunes Gonçalves | MD | <i>Assistente Conv. 20%</i> |
| Luís Filipe Martins da Silva | MD | <i>Assistente Conv. 20%</i> |
| Maria João Barbosa Silva | MD | <i>Assistente Conv. 20%</i> |
| Vera Filipa Batista da Silva Trocado | MD | <i>Monitora</i> |

Visiting Professors

Evandro de Oliveira, MD PhD, Prof.Titular (Universidade de Campinas, São Paulo)
 Gustavo Henrique Goldman, PhD, Prof.Titular (Universidade de São Paulo)
 Júlio Licínio (John Curtin School of Medical Research, Australian National University)
 Ma-Li Wong (John Curtin School of Medical Research, Australian National University)
 Maria de Sousa, PhD, Emeritus Professor, (Instituto de Ciências Biomédicas Abel Salazar)
 Osborne Almeida, MD, PhD, Full Professor (Max Planck Inst. of Psychiatry)
 Peter Vincent Scoles , MD (National Board of Medical Examiners)
 Rui Manuel Marques Fernandes da Costa, MVD, PhD (Fundação Champalimoud)

Non-Academic Staff

| Name | Qualifications | Categoria (Rank) | Service |
|--|----------------------------|---|------------------------------|
| José Carlos da F. Henriques | <i>Licenciatura</i> | <i>Secretário</i> | DEX (Retired on 2 July 2013) |
| Ana Paula Salgueira Rodrigues | <i>Licenciatura</i> | <i>Técnico Superior</i> | UEM |
| Amandine Marques Azevedo | <i>Licenciatura</i> | <i>Técnico Superior</i> | Secretariat |
| Lucília G. Ribeiro Pinto | <i>Mestrado</i> | <i>Técnico Superior</i> | Laboratories |
| Magda João Castelhana Carlos | <i>Mestrado</i> | <i>Técnico Superior</i> | Laboratories |
| M ^a José T. F. Tarroso Gomes | <i>Licenciatura</i> | <i>Técnico Superior</i> | Academic Office |
| M ^a Madalena Abreu C. Branco | <i>Licenciatura</i> | <i>Técnico Superior</i> | Secretariat |
| Maria Paulina D.M. Santos | <i>Licenciatura</i> | <i>Técnico Superior</i> | Project Support Office |
| Paula C. F. Gomes Pereira | <i>Licenciatura</i> | <i>Técnico Superior</i> | Human Resources |
| Ricardo Filipe Silva Mota | <i>Licenciatura</i> | <i>Técnico Superior</i> | Post-Graduation Office |
| Sandra M ^a T. Coutinho P. V. Santos | <i>Mestrado</i> | <i>Técnico Superior</i> | Laboratories |
| Luís Filipe F. Oliveira Martins | <i>Licenciatura</i> | <i>Técnico Superior</i> | Laboratories |
| Paulo Sérgio S. dos Santos Cabral | <i>Licenciatura</i> | <i>Especialista de Informática, Grau 3, Nível 2</i> | Informatics Office |
| Jorge Manuel S.G. Freitas | <i>Licenciatura</i> | <i>Técnico Superior</i> | UEM |
| Domingos Ferreira Dias | <i>Secondary Education</i> | <i>Técnico de Informática Adjunto</i> | Informatics Office |
| Olga Maria S. Miranda Abreu | <i>Secondary Education</i> | <i>Coordenador Técnico</i> | Secretariat |
| Cláudia Filipa R. Pereira | <i>Licenciatura</i> | <i>Assistente Técnico</i> | Laboratories |
| Denise Maria F. Silva | <i>Secondary Education</i> | <i>Assistente Técnico</i> | Laboratories |
| Fernando Paulo Duarte Silva | <i>Licenciatura</i> | <i>Assistente Técnico</i> | Financial Office |
| Helena Maria A. Nascimento | <i>Licenciatura</i> | <i>Assistente Técnico</i> | Secretariat |
| Isabel C. dos Santos Rocha | <i>Licenciatura</i> | <i>Assistente Técnico</i> | Planning Office |

| | | | |
|--------------------------------|-------------------------------|---|--------------------|
| Isabel Maria V. Barbosa | <i>Licenciatura</i> | <i>Assistente Técnico</i> | UEM |
| Maria Agostinha F. Costa | <i>Secondary Education</i> | <i>Assistente Técnico</i> | Laboratories |
| Maria Manuela M. Mendes | <i>Licenciatura</i> | <i>Assistente Técnico</i> | Financial Office |
| Pedro Miguel Borges Ribeiro | <i>Mestrado/Pós-Graduação</i> | <i>Assistente Técnico</i> | UEM |
| Sara Feio de A. R. A. Malheiro | <i>Licenciatura</i> | <i>Assistente Técnico</i> | UEM |
| António Miguel O. da Mota | <i>Secondary Education</i> | <i>Assistente Operacional</i> | Laboratories |
| João Filipe A. Malheiro | <i>Secondary Education</i> | <i>Assistente Operacional</i> | Laboratories |
| José Carlos Teixeira da Rocha | <i>Secondary Education</i> | <i>Assistente Operacional</i> | Laboratories |
| Maria Celina F. Barros | <i>Secondary Education</i> | <i>Assistente Operacional</i> | Laboratories |
| Maria Manuela S. Carneiro | <i>Secondary Education</i> | <i>Assistente Operacional</i> | Laboratories |
| Maria Fernanda C. Fernandes | <i>Basic Education</i> | <i>Assistente Operacional</i> | Laboratories |
| Susana Isabel Vaz Santos | <i>Secondary Education</i> | <i>Assistente Operacional</i> | Laboratories |
| Fernando Jorge Silva Nogueira | <i>Licenciatura</i> | <i>Especialista de Informática (PEUM)</i> | Informatics Office |
| Noé Amorim da Rocha | <i>Licenciatura</i> | <i>Especialista de Informática (PEUM)</i> | Informatics Office |
| Ana Sofia Silva Lima | <i>Licenciatura</i> | <i>Técnico de Diagnóstico e Terapêutica (Regime de aquisição de serviços)</i> | Laboratories |



School of Health Sciences

APPENDIX III

CLINICAL COORDINATING GROUPS, SUPERVISORS AND TUTORS AT THE AFFILIATED HOSPITALS AND HEALTH CENTRES

University of Minho

CLINICAL COORDINATING GROUPS

Acronyms - Health Institutions:

HB - Hospital de Braga

CHAAG – Centro Hospitalar do Alto Ave - Unidade de Guimarães

ULSAM - Unidade Local de Saúde do Alto Minho

a) The Medicine Coordination Group

- *Nuno Sousa* (MD, PhD/ ECS)
- *Damião Cunha* (MD, PhD/ ECS)
- *Abel Rua* (MD/ HB)
- *Jorge Cotter* (MD, PhD/ CHAAG)
- *Diana Guerra* (MD/ ULSAM)

b) The Woman, Mother and Child Health Coordination Group

- *Jorge Correia-Pinto* (MD, PhD/ ECS)
- *Pedro Cabrita* (MD/ HB)
- *Luísa Cardoso* (MD/ HB)
- *Almerinda Pereira* (MD/ HB)
- *Fernanda Tavares* (MD/ CHAAG)
- *Sofia Dantas* (MD/ CHAAG)
- *Cláudia Tavares* (MD / CHAAG)
- *Paula Pinheiro* (MD/ ULSAM)
- *José Rei Amorim* (MD/ ULSAM)

c) The Clinical Neuroscience Coordination Group

- *Nuno Sousa* (MD, PhD/ ECS)
- *João Bessa* (MD, PhD/ ECS)
- *João Cerqueira* (MD, PhD/ ECS)
- *Alberto Bessa-Peixoto* (MD/ HB)
- *Fátima Almeida* (MD/ HB)
- *Aníbal Ribeiro da Fonte* (MD, PhD/ ULSAM)
- *Sandra Perdigão* (MD/ ULSAM)
- *Carlos Lima* (MD, PhD/ CHAAG)
- *Lurdes Rodrigues* (MD/ CHAAG)

d) The Surgery Coordination Group

- *Nuno Sousa* (MD, PhD/ ECS)
- *João Espregueira Mendes* (MD, PhD/ ECS)
- *António Mesquita Rodrigues* (MD/ HB)
- *Carlos Alegria* (MD/ HB)
- *Carlos Alpoim* (MD/ CHAAG)
- *Fausto Fernandes* (MD/ CHAAG)
- *Alberto Midões* (MD/ ULSAM)

e) The Community Health and Family Medicine Coordination Group

- *Jaime Correia Sousa* (MD, PhD, Family Medicine/ ECS)
- *John Yaphe* (MD, MSc, Family Medicine/ ECS)
- *Alexandre Gouveia* (MD, Family Medicine/ ECS)
- *Luís Silva* (MD, Family Medicine/ ECS)
- *Manuel João Costa* (PhD, Community Health / ECS)
- *Patrício Costa* (PhD, Statistician, Community Health / ECS)
- *Cláudia Conceição* (MD, PhD Community Health/ ECS)

f) The 6th year Hospital's Residencies Coordination Group

- *Nuno Sousa* (MD, PhD/ ECS)
- *Damião Cunha* (MD, PhD/ ECS)
- *Abel Rua* (MD/ Hospital de Braga)
- *Jorge Cotter* (MD, PhD/ CHAAG)
- *Diana Guerra* (MD/ ULSAM)

HOSPITAL SUPERVISORS

Acronyms - Health Institutions:

HB - Hospital de Braga

CHAAG – Centro Hospitalar do Alto Ave - Unidade de Guimarães

ULSAM - Unidade Local de Saúde do Alto Minho

| | HB | CHAAG | ULSAM |
|--|---|-------------------------|---|
| Introduction to Clinical Medicine | Abel Rua Francisco Nunes Gonçalves | Jorge Cotter | Diana Guerra |
| Medicine I Residency | Abel Rua | Jorge Cotter | Diana Guerra |
| Internal Medicine | Abel Rua Francisco Nunes Gonçalves | Jorge Cotter | Diana Guerra |
| Pneumology | João Cunha | Maria Manuel Figueiredo | Rui Nêveda |
| Cardiology | Adelino Correia Adília Rebelo | António Lourenço | Carla Costa Dias Carlos Letra Mateus |
| Gastroenterology | Carla Rolanda | José Cotter | José Ramada |
| Clinical Neurosciences | | | |
| Psychiatry | Alberto Bessa-Peixoto | Carlos Lima | Aníbal Ribeiro da Fonte |
| Neurology | Fátima Almeida | Maria Lurdes Rodrigues | Sandra Perdigão |
| Maternal-Child Health Residency | | | |
| Gynaecology | Pedro Cabrita | Fernanda Tavares | Paula Pinheiro |
| Obstetrics | Luísa Cardoso | Sofia Dantas | Paula Pinheiro |
| Paediatrics | Almerinda Pereira | Cláudia Tavares | José Rei Amorim |
| Surgery Residency | A. Mesquita Rodrigues | Carlos Alpoim | Alberto Midões |
| General Surgery | A. Mesquita Rodrigues | Carlos Alpoim | Alberto Midões |
| Urology | Estêvão Lima | Ricardo Ramires | Eurico Maia |
| Ophthalmology | Fernando Vaz | ----- | Hugo Carvalho |
| ORL | Rui Pratas | Fausto Fernandes | Francisco Pereira |
| Orthotraumatology | Manuel Vieira da Silva | Carlos Vilela | Lima Rodrigues |
| Neurosurgery | Carlos Alegria | ----- | Miguel Leal |
| Medicine II Residency | Abel Rua | Jorge Cotter | ----- |
| Internal Medicine | Abel Rua Francisco Nunes Gonçalves | Jorge Cotter | Diana Guerra |
| Infectious Diseases | Francisco Nunes Gonçalves | Jorge Cotter | ----- |
| Nephrology | Abel Rua | Jorge Cotter | ----- |
| Hemato-oncology | Rui Naboço António Marques | Camila Coutinho | Diana Guerra |
| Dermatology | Celeste Brito | António Ferrete | ----- |
| Endocrinology | Altino Frias | ----- | ----- |
| Hospital Residencies – Final Training | | | |
| Internal Medicine | Abel Rua Francisco Nunes Gonçalves | Jorge Cotter | Diana Guerra |
| Gynaecology | Pedro Cabrita | Cláudia Guerra | Paula Pinheiro |
| Obstetrics | Luísa Cardoso | Cláudia Guerra | Paula Pinheiro |
| Paediatrics | Almerinda Pereira | Cláudia Tavares | José Rei Amorim |
| Mental Health | Alberto Bessa-Peixoto | Carlos Lima | Aníbal Ribeiro da Fonte |
| Surgery | A. Mesquita Rodrigues | Carlos Alpoim | Alberto Midões |

HEALTH CENTRE SUPERVISORS

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

Training in a Health Centre

| Area | Supervisor |
|---|---|
| ACES do Cávado I – Braga | Ana Filipa Pimentel / Cláudia Conceição |
| ACES do Cávado II – Gerês/Cabreira | Ana Filipa Pimentel / Cláudia Conceição |
| ACES do Cávado III – Barcelos/Esposende | Ana Filipa Pimentel / Cláudia Conceição |
| ACES do Alto Ave – Guimarães/Vizela/Terras de Basto | Luís Laranjeiro |

Family, Society and Health I / II

| Area | Supervisor |
|---|--|
| ACES do Cávado I – Braga | Ana Filipa Pimentel / Cláudia Conceição |
| ACES do Cávado II – Gerês/Cabreira | Ana Filipa Pimentel / Cláudia Conceição |
| ACES do Alto Ave – Guimarães/Vizela/Terras de Basto | Alexandre Gouveia / Yonah Yaphe / Luís Silva |
| ULS de Matosinhos | Alexandre Gouveia / Yonah Yaphe/ Luís Silva |
| ULS do Alto Minho | Alexandre Gouveia / Yonah Yaphe/ Luís Silva |

Health Centre I Residency

| Area | Supervisor |
|---------------|---------------|
| Public Health | Mário Freitas |

Health Centre II Residency

| Area | Supervisor |
|---|---|
| ACES do Alto Ave – Guimarães/Vizela/Terras de Basto | Luís Laranjeiro |
| ACES do Ave – Famalicão | Ana Filipa Pimentel / Ana Gomes |
| ACES do Cávado I – Braga | Ana Filipa Pimentel / Ana Gomes / Maria João Barbosa / Ana Teresa Magalhães |
| ACES do Cávado II – Gerês/Cabreira | Ana Filipa Pimentel / Ana Gomes |
| ACES do Cávado III – Barcelos/Esposende | Ana Filipa Pimentel / Ana Gomes / Maria João Barbosa / Ana Teresa Magalhães |
| ACES do Grande Porto I – Santo Tirso/Trofa | Luís Silva |
| ACES do Grande Porto II – Gondomar | Jaime Correia de Sousa |
| ACES do Grande Porto III – Maia/Valongo | Jaime Correia de Sousa |
| ACES do Grande Porto IV – Póvoa de Varzim/Vila do Conde | Jaime Correia de Sousa/ Luís Silva |
| ACES do Grande Porto V – Porto Ocidental | Jaime Correia de Sousa |

| | |
|--|------------------------|
| ACES do Grande Porto VI – Porto Oriental | Jaime Correia de Sousa |
| ACES do Grande Porto VII – Vila Nova de Gaia | Jaime Correia de Sousa |
| ACES do Tâmega III – Vale do Sousa Norte | Jaime Correia de Sousa |
| ACES Vila Real | Jaime Correia de Sousa |
| ULS do Alto Minho | Alexandre Gouveia |
| ULS de Matosinhos | Jaime Correia de Sousa |

Health Centre Residency – Final Training

| Area | Supervisor |
|---|---|
| ACES do Alto Ave – Guimarães/Vizela/Terras de Basto | Luís Laranjeiro |
| ACES do Ave – Famalicão | Ana Filipa Pimentel / Ana Gomes |
| ACES do Cávado I – Braga | Ana Filipa Pimentel / Ana Gomes / Maria João Barbosa / Ana Teresa Magalhães |
| ACES do Cávado II – Gerês/Cabreira | Ana Filipa Pimentel / Ana Gomes |
| ACES do Cávado III – Barcelos/Esposende | Ana Filipa Pimentel / Ana Gomes / Maria João Barbosa / Ana Teresa Magalhães |
| ACES do Grande Porto I – Santo Tirso/Trofa | Luís Silva |
| ACES do Grande Porto II – Gondomar | Jaime Correia de Sousa |
| ACES do Grande Porto III – Maia/Valongo | Jaime Correia de Sousa |
| ACES do Grande Porto IV – Póvoa de Varzim/Vila do Conde | Jaime Correia de Sousa/ Luís Silva |
| ACES do Grande Porto V – Porto Ocidental | Jaime Correia de Sousa |
| ACES do Grande Porto VII – Vila Nova de Gaia | Jaime Correia de Sousa |
| ULS do Alto Minho | Alexandre Gouveia |
| ULS de Matosinhos | Jaime Correia de Sousa |
| Other areas | Jaime Correia de Sousa |

HOSPITAL TUTORS

Acronyms - Health Institutions:

HB - Hospital de Braga

CHAAG – Centro Hospitalar do Alto Ave - Unidade de Guimarães

ULSAM - Unidade Local de Saúde do Alto Minho

INTRODUCTION TO CLINICAL MEDICINE

| HB | CHAAG | ULSAM |
|--------------------------|--------------------------|--------------------------|
| Internal Medicine | Internal Medicine | Internal Medicine |
| Alexandre Carvalho | Ana Novo | Ana Nascimento |
| Cecília Vilaça | Elisa Torres | Carmélia Rodrigues |
| Filipa Azevedo | Emília Lopes | Edgar Torre |
| Juan Garcia | Estefânia Bustabad | Liliana Costa |
| Luísa Pinto | Filipe Gonçalves | Manuel Ferreira |
| Margarida Fonseca | Glória Alves | Soraia Oliveira |
| Maria do Rosário Araújo | Helena Sarmento | |
| Maria João Regadas | Magda Fernandes | |
| Maria João Silva | Margarida Rocha | |
| Olinda Sousa Caetano | Nuna Vieira | |
| Paulo Gouveia | Pedro Cunha | |
| Ricardo Alves | Sara Pereira | |
| Sofia Esperança | | |

MEDICINE I RESIDENCY

Medicine I Residency – HB

| Internal Medicine | Pneumology | Cardiology | Gastroenterology |
|------------------------|-------------------|-----------------|-------------------|
| Alexandre Carvalho | Beatriz Fernandes | Adelino Correia | Ana Célia Caetano |
| Cristina Ângela | Cecília Pacheco | Alberto Salgado | Bruno Gonçalves |
| Ilídio Brandão | João Cunha | António Gaspar | Carla Rolanda |
| Isabel Apolinário | Lourdes Iglésias | Carlos Braga | João Soares |
| Luísa Pinto | Lurdes Ferreira | Jorge Marques | Paula Peixoto |
| Manuela Rocha | Manuel Macedo | Nuno Salomé | Pedro Bastos |
| Maria do Céu Rodrigues | Rui Rolo | Sérgia Rocha | |
| Maria João Regadas | | Sérgio Nabais | |
| Narciso Oliveira | | Sónia Magalhães | |
| Olinda Sousa Caetano | | Sílvia Ribeiro | |
| Paulo Gouveia | | Vítor Ramos | |
| Rosário Araújo | | | |
| Sofia Caridade | | | |
| Sofia Esperança | | | |
| Teresa Pimentel | | | |

Medicine I Residency – CHAAG

| Internal Medicine | Pneumology | Cardiology | Gastroenterology |
|--------------------------|-------------------------|-------------------|--------------------------|
| Ana Silva | António Costa | António Lourenço | Bruno Rosa |
| Cristina Ramalho | Duarte Araújo | | Carla Marinho |
| Elisa Torres | Maria José Guimarães | | Francisca Dias de Castro |
| Estefânia Bustabad | Maria Manuel Figueiredo | | Joana Magalhães |
| Filipe Gonçalves | | | José Manuel Ribeiro |
| Glória Alves | | | Mara Barbosa |
| Helena Sarmento | | | Maria João Moreira |
| Rafael Velho | | | Pedro Carvalho |
| Rui Fernandes | | | Pedro Moutinho Ribeiro |
| Sandra Barbosa | | | Sílvia Leite |
| Sara Freitas | | | |
| Sara Pereira | | | |

Medicine I Residency – ULSAM

| Internal Medicine | Pneumology | Cardiology | Gastroenterology |
|--------------------------|-------------------|---------------------|-------------------------|
| Augusta Silva | Elena Lombardia | Carla Costa Dias | João Carrasquinho |
| Carmélia Rodrigues | Francisco Diaz | Carlos Letra Mateus | José Ramada |
| João Pedro Andrade | José Albino Lopes | Rui Pedro Lima | Luís Lopes |
| Manuel Ferreira | Rui Nêveda | Vânia Enes | |
| Paula Felgueiras | | | |
| Raquel Lopez | | | |

CLINICAL NEUROSCIENCES**Clinical Neurosciences – HB**

| Psychiatry | Neurology |
|--------------------|--------------------|
| António Sousa Cepa | Álvaro Machado |
| Daniela Freitas | Ana Filipa Santos |
| David Jurjo | Carla Ferreira |
| Joaquim Duarte | Esmeralda Lourenço |
| Jorge Gonçalves | Filipa Sousa |
| Juliana Carvalho | Gisela Carneiro |
| Maria Luisa Silva | João Pereira |
| Natália Fernandes | Ricardo Maré |
| Pedro Morgado | |
| Sónia Azenha | |

Clinical Neurosciences - CHAAG

| Psychiatry | Neurology |
|----------------------|------------------------|
| Carlos Lima | Ângela Silva |
| Luís Fonseca | Maria Lurdes Rodrigues |
| Rosa Maria Rodrigues | Miguel Gago |
| Sónia Ramos | |

Clinical Neurosciences - ULSAM

| Psychiatry | Neurology |
|-------------------|------------------|
| Bruno Coutinho | Élia Baeta |
| Elisa Lopes | Rosa Lobato |
| Paula Pina | Sandra Perdigão |
| Ricardo Gil Faria | |
| Teresa Novo | |

MATERNAL AND CHILD HEALTH RESIDENCY**Maternal and Child Health Residency - HB**

| Gynaecology | Obstetrics | Paediatrics | Neonatology |
|--------------------|--------------------------|--------------------|--------------------|
| Afonso Rocha | Blandina Gil | Ana Antunes | Albina Silva |
| Etelvina Cruz | Carla Monteiro | Ângela Oliveira | Carla Sá |
| Luís Castro | Fernando Cardoso Ricardo | Ângela Pereira | Dária Resende |
| Maria José Rocha | Luís Carvalho | Ariana Afonso | Eduarda Abreu |
| Paula Serrano | Luísa Cardoso | Augusta Gonçalves | Isabel Cunha |
| Pedro Cabrita | Teresa Ramos | Carla Garces | Miguel Costa |
| | | Carla Moreira | Nicole Silva |
| | | Claudia Patraquim | |
| | | Filipa Neiva | |
| | | Helena Silva | |
| | | Henedina Antunes | |
| | | Joana Teixeira | |
| | | Manuela Alves | |
| | | Maria Miguel Gomes | |
| | | Sofia Martins | |
| | | Susana Carvalho | |
| | | Teresa Pontes | |
| | | Vera Baptista | |

Maternal and Child Health Residency - CHAAG

| Gynaecology | Obstetrics | Paediatrics | Neonatology |
|------------------------|----------------------|--------------------|--------------------|
| Carla Duarte | Adosinda Rosmaninho | Alberto Costa | Agostinha Costa |
| Carolina | Ana Maria Andrade | Ana Luísa Lobo | Clara Paz Dias |
| Fernanda Fernandes | António Almeida | Armandina Silva | Maria José Vale |
| Horácio Azevedo | Carlinda | Cláudia Tavares | |
| Manuela Mesquita | Cátia Ferreira | Cristina Ferreira | |
| Pedro Figueiredo | Cláudia Guerra | Isolina Aguiar | |
| Pedro Oliveira | Dânia Ferreira | Teresa São Simão | |
| Pedro Vieira de Castro | Elsa Pereira | | |
| Sofia Costa | Rosa Maria Fernandes | | |
| Vivas de Freitas | Sofia Dantas | | |

Maternal and Child Health Residency - ULSAM

| Gynaecology / Obstetrics | Paediatrics | Neonatology |
|---------------------------------|-----------------------|--------------------|
| Agostinho Carvalho | Catarina Sousa | Beatriz Sousa |
| Ana Paula Gama | Ana Rita Araújo | Emília Monteiro |
| Ana Rita Abreu | Hugo Rodrigues | |
| Avelina Almeida | Idalina Maciel | |
| Domingos Ribeiro | Margarida Reis Morais | |
| Fátima Domingues | Sandrine Martins | |
| Jorge Mesquita | Suzana Figueiredo | |
| Márcio Faria | Virgínia Sampaio | |
| Pedro Patrão | | |
| Marinho Santos | | |

SURGERY RESIDENCY

Surgery Residency - HB

| General Surgery | Urology | Ophthalmology | ORL | Orthotraumatology | Neurosurgery |
|-------------------|------------------------|------------------------|------------------|-------------------|----------------------|
| Cristina Ribeiro | António Pedro Carvalho | Carla Ferreira | Angelino Barroso | Duarte Alegre | Afonso Almeida Pinto |
| Conceição Antunes | Carlos Oliveira | Gabriel Morgado | Berta Rodrigues | Eurico Bandeira | Joana Boléo Tomé |
| Dina Luis | Jorge Ribeiro | Luís Mendonça | Daniel Miranda | Nuno Sevivas | João Abreu Lima |
| Elsa Amorim | Vítor Hugo Nogueira | Maria Antónia Costa | Duarte Freitas | Nuno Tavares | Miguel Afonso |
| Fernanda Nogueira | | Nuno Gomes | Filipa Moreira | Pedro Varanda | Nuno Morais |
| Fernando Manso | | Nuno Lopes | Joana Guimarães | Ricardo Maia | Ricardo Moreira |
| Helena Marques | | Paulo Mesquita Marques | Luís Dias | Duarte Alegre | Rui Almeida |
| Joaquim Falcão | | Rita Gentil | Nuno Marçal | Eurico Bandeira | |
| Maia da Costa | | Sandra Guimarães | Matos Gonçalves | Nuno Sevivas | |
| Mário Reis | | Tiago Monteiro | Rui Pratas | Nuno Tavares | |
| Pedro Leão | | | Santiago Mielgo | Pedro Varanda | |
| Ricardo Pereira | | | Sara Pereira | Ricardo Maia | |
| Sónia Ribas | | | Sérgio Vilarinho | | |
| Sónia Vilaça | | | | | |
| Teresa Carneiro | | | | | |

Surgery Residency - CHAAG

| General Surgery | Urology | ORL | Orthotraumatology |
|-----------------|------------------|----------------------------|-------------------|
| Andreia Santos | Carlos Guimarães | Alexandre Mexedo | António Moreira |
| João Reis | Jaime Faria | Ângelo Fernandes | Carlos Vilela |
| Jorge Magalhães | Ricardo Ramires | Carlos Matos | Manuel Loureiro |
| Lima Terroso | Rui Versos | Francisco Moreira da Silva | Ramon Ferrero |
| Manuel Ferreira | | Rafaela Teles | Rui Cerqueira |
| Marina Oliveira | | Rita Lopes Moura | Tiago Basto |
| Ricardo Moreira | | Rui Fonseca | |
| Rui Pinto | | | |
| Santos Costa | | | |
| Vítor Costa | | | |

Surgery Residency - ULSAM

| General Surgery | Urology | Ophthalmology | ORL | Orthotraumatology |
|--------------------------|--------------------|---------------|-------------------|--------------------------|
| Fernando Barbosa | Eurico Maia | Fernando Vale | Cecília Pereira | Carlos Alves |
| Francisco Fazeres | José Manuel Leitão | Hugo Carvalho | Francisco Pereira | Cristina Varino |
| Jesus Ventura Rodriguez | José Pedro Cadilhe | | Lima Rodrigues | Francisco Lima Rodrigues |
| Manuel Araújo | | | Vitória Seoane | Luís Silva |
| Maria Conceição Monteiro | | | | Maria Francisca Gonzalez |
| Marília Cardoso | | | | |
| Teresa Almeida | | | | |

MEDICINE II RESIDENCY

Medicine II Residency - HB

| Internal Medicine | Infectious Diseases | Nephrology | Endocrinology | Hemato-oncology | Dermatology |
|------------------------|---------------------|---------------|---------------------|-------------------|-----------------------|
| Cecília Vilaça | Alexandre Carvalho | Carlos Soares | Catarina Matos | Catarina Portela | Ana Paula Vieira |
| Ilídio Brandão | Teresa Pimentel | | Maria Lopes Pereira | Herlander Marques | Cristiana Macedo |
| Juan Garcia | | | Olinda Marques | Júlia Amorim | José Carlos Fernandes |
| Luísa Pinto | | | | Teresa Macedo | Maria da Luz Duarte |
| Manuela Rocha | | | | Ana Paula Barbosa | Teresa Pereira |
| Maria do Céu Rodrigues | | | | António Marques | |
| Maria João Regadas | | | | | |
| Mónica Almeida | | | | | |
| Narciso Oliveira | | | | | |
| Olinda Sousa Caetano | | | | | |
| Paulo Gouveia | | | | | |
| Rosário Araújo | | | | | |
| Sofia Caridade | | | | | |
| Sofia Esperança | | | | | |

Medicine II Residency - CHAAG

| Internal Medicine, Infectious Diseases, Nephrology and Endocrinology | Hemato-oncology | Dermatology |
|--|--------------------|-----------------|
| Carlos Fernandes | Alexandra Teixeira | António Ferrete |
| Elisa Torres | Camila Coutinho | Olga Pereira |
| Estefânia Bustabad | Ilda Faustino | |
| Filipe Gonçalves | | |
| Glória Alves | | |
| Helena Sarmento | | |
| Laura Castro | | |
| Marta Gonçalves | | |
| Nuna Vieira | | |
| Rafael Velho | | |
| Rui Fernandes | | |
| Sara Freitas | | |

Medicine II Residency - ULSAM

| Internal Medicine, Infectious Diseases, Nephrology and Endocrinology | Hemato-oncology |
|--|-----------------|
| Carmélia Rodrigues | Luísa Azevedo |
| Fernando Gomes | |
| Liliana Costa | |
| Manuel Ferreira | |
| Raquel Lopes | |

HOSPITAL RESIDENCIES – FINAL TRAINING

Hospital Residencies – Final Training - HB

| Internal Medicine | General Surgery | Psychiatry | Gynaecology / Obstetrics | Paediatrics |
|------------------------|-------------------|-------------------|--------------------------|-------------------|
| Alexandre Carvalho | Conceição Antunes | Daniela Freitas | Gabriel Borges | Albina Silva |
| Guilherme Gomes | Dina Luís | David Jurjo | Isabel Jardim | Ariana Afonso |
| Ilídio Brandão | Fernanda Nogueira | João Bessa | Judite Sá Barros | Augusta Gonçalves |
| Juan Garcia | Fernando Manso | Joaquim Duarte | Lucília Araújo | Carla Moreira |
| Luísa Pinto | Helena Marques | Juliana Carvalho | Olímpia Fernandes | Carla Sá |
| Manuela Rocha | Maia da Costa | Maria Luísa Silva | Teresa Coutinho | Eduarda Abreu |
| Maria do Céu Rodrigues | Mário Reis | Pedro Morgado | | Filipa Neiva |
| Maria João Regadas | Pedro Leão | Sónia Azenha | | Helena Silva |
| Narciso Oliveira | Ricardo Pereira | | | Henedina Antunes |
| Olinda Sousa Caetano | Sónia Ribas | | | Isabel Cunha |
| Paulo Gouveia | Sónia Vilaça | | | Manuela Alves |
| Rosário Araújo | Teresa Carneiro | | | Sofia Martins |
| Sofia Caridade | | | | Susana Carvalho |
| Sofia Esperança | | | | Teresa Pontes |
| Teresa Pimentel | | | | |

Hospital Residencies – Final Training - CHAAG

| Internal Medicine | General Surgery | Psychiatry | Gynaecology / Obstetrics | Paediatrics |
|--------------------|-----------------------|----------------------|--------------------------|------------------|
| Ana Novo | Andreia Santos | Carlos Lima | Cláudia Guerra | Bernarda Sampaio |
| Carlos Fernandes | Carla Marina Oliveira | Luís Fonseca | | Carla Laranjeira |
| Cristina Cunha | Carlos Santos Costa | Rosa Maria Rodrigues | | Carla Meireles |
| Cristina Ramalho | João Reis | Sónia Ramos | | Liliana Macedo |
| Elisa Torres | Jorge Magalhães | | | Sandra Rodrigues |
| Emília Lopes | Lima Terroso | | | Susana Soares |
| Estefânia Bustabad | Manuel Ferreira | | | |
| Fernando Esculcas | Ricardo Moreira | | | |
| Filipe Gonçalves | Rui Pinto | | | |
| Glória Alves | Vítor Costa | | | |
| Helena Sarmento | | | | |
| Hilda Coronado | | | | |
| Laura Castro | | | | |
| Magda Fernandes | | | | |
| Nuna Vieira | | | | |
| Paulo Ferreira | | | | |
| Rui Fernandes | | | | |
| Rafael Velho | | | | |
| Sara Freitas | | | | |
| Sara Pereira | | | | |

Hospital Residencies – Final Training - ULSAM

| Internal Medicine | General Surgery | Psychiatry | Gynaecology / Obstetrics | Paediatrics |
|--------------------------|------------------------|-------------------|---------------------------------|--------------------|
| Carmélia Rodrigues | Conceição Monteiro | Bruno Sá Coutinho | Ângela Santos | Isabel Martinho |
| Joana Carneiro | Eduardo Vasconcelos | Patrício Ferreira | Pedro Coutinho | Sérgio Mendanha |
| Lúcia Brandão | Fernando Barbosa | Patrick Alves | Soraia Cunha | |
| Manuel Ferreira | Francisco Fazeres | Paula Pina | | |
| Liliana Costa | Marília Cardoso | | | |
| Raquel Lopez | Rui Escaleira | | | |
| Susana Barbosa | Teresa Almeida | | | |

HEALTH CENTRE TUTORS

Acronyms - Health Institutions:

ACES – Agrupamento de Centros de Saúde

ULS – Unidade Local de Saúde

CS – Centro de Saúde

USF – Unidade de Saúde Familiar

US – Unidade de Saúde

UCSP – Unidade de Cuidados de Saúde Personalizados

HEALTH CENTRE I RESIDENCY

| Area | Tutor |
|-------|---------------------|
| Braga | Amaro Domingues |
| | João Manuel Cruz |
| | Mário Freitas |
| | Pedro Gomes Pereira |

HEALTH CENTRE II RESIDENCY

ACES Alto Ave – Guimarães/Vizela/Terras de Basto

| Health Centre | Tutor |
|--|----------------------|
| CS Guimarães – USF Afonso Henriques | Alberto Oliveira |
| | Rosa Marques |
| CS Guimarães – USF S. Nicolau | Luísa Pinto |
| | Rui Guedes |
| CS Guimarães – USF Vimaraneses | Carolina Amorim |
| | Eduarda Meneses |
| CS Taipas – USF Ara de Trajano | Sílvia Sousa |
| | Susana Pereira |
| CS Taipas – USF Duovida (Pólo das Caldas das Taipas) | Alberto Perez |
| | Alice Perez |
| CS Taipas – USF Ponte | Celina Peliz |
| | Mafalda Jordão Abreu |
| | Maria Alcina Pires |
| | Maria João Ribeiro |
| | Nelson Pereira |
| | Pedro Fonte |
| | Rui Oliveira |
| | Santiago Figueiroa |
| CS Taipas – USF Ronfe | António Miguelote |
| | Carina Antunes |
| | Vítor Ferreira |

ACES do Ave – Famalicão

| Health Centre | Tutor |
|-------------------|----------------------|
| USF Famalicão 1 | Maria Alexandra Reis |
| | Olenka Hahn |
| USF Terras do Ave | Álvaro Pereira |
| | Maria Amélia Silva |

ACES do Cávado I – Braga

| Health Centre | Tutor |
|--------------------------|------------------------|
| USF Bracara Augusta | Cátia Azeméis |
| | José Fernandes |
| | Moura Leal |
| USF Gualtar | Cláudia Melo |
| | Cristiana Sousa |
| | Francisco Fachado |
| | Helena Machado |
| | Márcia Milet |
| | Margarida Lima |
| | Maria Jesus Peixoto |
| | Ricardo Silva |
| | Rui Caetano |
| USF Manuel Rocha Peixoto | Augusta |
| | Berta Catalão |
| | João Carvalho |
| | Manuela Macedo |
| USF S. João | Pelaez Carones |
| | Maria José Cabrita |
| USF S. Lourenço | Madalena Cerqueira |
| USF + Carandá | Adriana Vaz |
| | João Portela |
| | Maria Luísa Serra |
| | Maria Palmira Carneiro |
| | Pimenta Marinho |
| USF MAXiSaúde | Miguel Nunes |
| | Paula Marques |
| USF Sanus Carandá | Lucinda Melo |
| UCSP Adaúfe | Patrícia Valadares |
| UCSP Infias | Aparício Braga |
| | Marina Gonçalves |

ACES do Cávado II – Gerês/Cabreira

| Health Centre | Tutor |
|---|--------------------|
| USF PróSaúde - Vila Verde | Isabel Alves |
| USF VIDA + Vila Verde | Manuel Mariño |
| USF AmareSaúde | Carla Côrrelo |
| | Mário Rui Oliveira |
| | Rui Eusébio |
| UCSP Viver Mais | Yolanda Carollo |
| CS Póvoa de Lanhoso – USF Terras de Lanhoso | Alfredo Couto |
| CS Vila Verde – USF Prado | Cândida Carlos |
| | Filomena Reys |
| Rio Caldo | António Salgado |

ACES do Cávado III – Barcelos/Esposende

| Health Centre | Tutor |
|---|-----------------------------|
| CS Barcelos - USF Lígios | Ana Maria Ferreira |
| | Maria Goreti Neves Costa |
| CS Barcelos - USF Santo António | Antero Monteiro |
| | Cândido Macedo |
| CS Barcelos – USF Alcides Faria (Vila Seca) | Elisabete Coutinho |
| CS Barcelos – USF Esposende Norte | Maria Céu Pinto |
| USF Calécia (Macieira de Rates) | Maria Dolores Prego Riveiro |
| USF Viatodos | Sandra Garrido Santos |

ACES do Grande Porto I – Stº Tirso/Trofa

| Health Centre | Tutor |
|---|----------------------|
| Extensão de Saúde São Martinho do Campo | Ana Teresa Magalhães |
| | Cláudia Bulhões |
| | Cláudia Neto |
| USF Ponte Velha | Marisa Belchior |
| | Sónia Ferreira |
| USF Vil'Alva | Sónia Cardoso |

ACES do Grande Porto II – Gondomar

| Health Centre | Tutor |
|-----------------|----------------|
| USF Nascente | Alzira Braga |
| USF Santa Maria | Isabel Santos |
| | Raquel Marques |

ACES do Grande Porto III – Maia/Valongo

| Health Centre | Tutor |
|----------------|----------------|
| USF Ermesinde | Helena Vieira |
| USF Pirâmides | Soledade Cosme |
| USF Viver Mais | Noémia Pinto |

ACES do Grande Porto IV – Póvoa de Varzim/Vila do Conde

| Health Centre | Tutor |
|-------------------------|-----------------|
| USF Aqueduto | Elisa Ribeiro |
| USF Casa dos Pescadores | João Monteiro |
| USF do Mar | Ana Paula Gomes |
| | João Cunha |
| USF Eça de Queirós | Inês Bacelar |
| | Isabel Hora |
| USF Santa Clara | Patrícia Coelho |

ACES do Grande Porto V – Porto Ocidental

| Health Centre | Tutor |
|------------------|-------------------------|
| UCSP Lordelo | Flaminia Ciais |
| | Margarida |
| USF Aníbal Cunha | Rosa Pires |
| USF Bom Porto | Patricia Ferreira |
| USF S. João | Abílio Malheiro |
| | Maria João Sena Esteves |
| USF Serpa Pinto | Bernardo Vilas Boas |

ACES do Grande Porto VI – Porto Oriental

| Health Centre | Tutor |
|---------------------|------------------|
| UCSP Santos Pousada | Glória Bernardes |
| | Maria João Neto |
| USF Novo Sentido | Darcília Eusébio |

ACES do Grande Porto VII – Gaia

| Health Centre | Tutor |
|-------------------------|-------------------|
| USF Espinho | Helena Beça |
| | Jorge Vinagre |
| USF S. Félix da Marinha | Cândida Guedes |
| Canidelo | Fernando Ferreira |

ACES do Tâmega III – Vale do Sousa Norte

| Health Centre | Tutor |
|----------------------------|----------|
| CS Lousada – USF do Torrão | Rui Neto |

ACES Vila Real

| Health Centre | Tutor |
|---------------|---------------------|
| USF Fénix | Augusto Ceriz |
| | Maria João Serafino |

ULS Alto Minho

| Health Centre | Tutor |
|--|-------------------|
| CS Arcos de Valdevez – USF Uarcos | Belmira Reis |
| CS Arcos de Valdevez – USF Vale do Vez | Laura Santos |
| CS de Monção | Dolores Torres |
| CS Ponte de Lima – USF Lethes | Raúl Pereira |
| CS Viana do Castelo - USF Gil Eanes | José Manuel Cunha |

ULS de Matosinhos

| Health Centre | Tutor |
|---------------|-----------------|
| USF Horizonte | Raquel Castro |
| | Teresa Carneiro |
| USF Leça | Filomena Pastor |

HEALTH CENTRE RESIDENCY – FINAL TRAINING**ACES Alto Ave – Guimarães/Vizela/Terras de Basto**

| Health Centre | Tutor |
|---|--------------------------|
| CS Cabeceiras de Basto – USF O Basto | Manuel Sá Nogueira |
| CS Fafe – USF Nós e Vós Saúde | Nuno Santiago |
| CS Fafe – USF Novo Cuidar | Anabela Von Doellinger |
| | Sameira Gonçalves |
| CS Guimarães – USF Vimaraneses | Carolina |
| CS Guimarães – USF D. Afonso Henriques | Maria José Lopes |
| | Ricardo Cardoso |
| CS Taipas – USF Ara de Trajano | Eduarda Meneses |
| | Susana Pereira |
| CS Taipas – USF Duovida (Pólo de Briteiros) | Fernanda Rodrigues |
| | Luísa Ferraz |
| | Celina Peliz |
| CS Taipas – USF Ponte | Maria Alcina Pires |
| | Maria João Ribeiro |
| | Nélson Pereira |
| | Santiago Figueiroa |
| | António Miguelote |
| CS Taipas – USF Ronfe | Carina Antunes |
| | Vitor Ferreira |
| CS Vizela – USF Novos Rumos | Maria da Conceição Costa |
| | João Cocharra |

ACES do Ave – Famalicão

| Health Centre | Tutor |
|------------------------------|------------------------------|
| CS Famalicão - USF Famalicão | Fátima Maria Meira |
| | Olenka Hahn |
| CS Requião | Maria do Carmo Sousa Azevedo |

ACES do Cávado I – Braga

| Health Centre | Tutor |
|---|------------------------------|
| US Carandá – USF Gualtar | Cláudia Melo |
| | Cristiana Sousa |
| | Márcia Milet |
| US Maximinos – USF Manuel Rocha Peixoto | João Carvalho |
| | José Samarão |
| | Manuela Macedo |
| | Maria Augusta Pereira |
| USF MaxiSaúde | Rui Macedo |
| UCSP Infias | Isabel Maria Oliveira Santos |
| USF + Carandá | Adriana Vaz |
| | Dinis Brito |
| | Inês Dias |
| | Maria Palmira Carneiro |
| | Pimenta Marinho |
| | Tahydi Valle |
| | Tânia Gomes |

ACES do Cávado II – Gerês/Cabreira

| Health Centre | Tutor |
|---|--------------------|
| CS Amares – USF AmareSaúde | Mário Rui Oliveira |
| | Rui Eusébio |
| UCSP Póvoa de Lanhoso | Francisco Lopes |
| CS Póvoa de Lanhoso – USF Terras de Lanhoso | Alfredo Couto |
| USF VIDA + Vila Verde | Manuel Mariño |
| | Teresa Andrade |
| CS Vila Verde – USF Prado | Filomena Reys |
| | Isabel Martins |

ACES do Cávado III – Barcelos/Esposende

| Health Centre | Tutor |
|--|--------------------------------|
| CS Barcelos – USF Santo António | Dulce Maria Teixeira Carvalho |
| CS Barcelos – USF Lígios | Maria Goreti Neves Costa |
| USF Esposende Norte - Unidade de Forjães | Maria Aranzazu Souto |
| CS Barcelos – USF Alcaldes Faria (Vila Seca) | Eliseu Manuel Alvarez Martinez |

ACES do Grande Porto I – Stº Tirso/Trofa

| Health Centre | Tutor |
|----------------|--------------|
| CS Santo Tirso | Cláudia Neto |

ACES do Grande Porto II – Gondomar

| Health Centre | Tutor |
|------------------------------|----------------|
| USF Fânzeres | Ana Coelho |
| USF Sete Caminhos - S. Cosme | Fátima Borges |
| USF Sta. Maria - Rio Tinto | Raquel Marques |

ACES do Grande Porto III – Maia/Valongo

| Health Centre | Tutor |
|------------------------|--------------------------------|
| USF S. João de Sobrado | Vanessa Silva Neves Aires |
| USF Valongo | Ana Paula Madureira Reis |
| USF Pirâmides | Isabel Susana Monteiro Alves |
| | Susana Cristina Lemos Oliveira |

ACES do Grande Porto IV – Póvoa de Varzim/Vila do Conde

| Health Centre | Tutor |
|---|----------------------------|
| CS Póvoa do Varzim – USF Eça de Queirós | José Albino Mesquita |
| | Vítor Fernando Barros Reis |
| CS Póvoa do Varzim – USF do Mar | Ana Paula Gomes |
| CS Póvoa do Varzim – USF Pescas | João Monteiro |
| | Vera Pires |
| | Ana Almeida |
| CS Vila do Conde – USF Santa Clara | Benedita Graça Moura |
| | Gomes Eusébio |
| CS Vila do Conde – USF Aqueduto | Elisa Ribeiro |

ACES do Grande Porto V – Porto Ocidental

| Health Centre | Tutor |
|---------------|-------------------|
| USF Bom Porto | Patrícia Ferreira |

ACES do Grande Porto VII – Gaia

| Health Centre | Tutor |
|---------------|-------------------|
| USF Canidelo | Fernando Ferreira |
| | Regina Ferreira |
| USF Canelas | Ana Rita Mourão |

ULS Alto Minho

| Health Centre | Tutor |
|-------------------------------------|-----------------------|
| CS Arcos de Valvedez – USF UarcoS | Sofia Azevedo |
| CS Ponte de Lima – USF Vale do Lima | Sílvia Barge |
| CS Viana do Castelo – USF Gil Eanes | Maria da Luz Monteiro |

ULS de Matosinhos

| Health Centre | Tutor |
|-----------------------------------|----------------------|
| CS Leça da Palmeira – USF Maresia | Joana Correia |
| | Teresa Donat Marques |
| CS Matosinhos – USF Horizonte | Raquel Castro |

Other areas

| Health Centre | Tutor |
|------------------------|--------------|
| CS Bom Jesus – Funchal | Ana Sá |
| Ponta Delgada | Marta Borges |
| Murça | José Coelho |



School of Health Sciences

APPENDIX IV

Report of the Advisory Council of the School (ACS)

University of Minho

Report of the Advisory Council of the School (ACS)

Braga 9 – 10 December , 2011

Executive Summary

The ACS is pleased to emphasize that the School can be proud of having made important achievements in the past few years, in the domains of both Education and of Research.

A number of main recommendations follow:

- (i) The ACS is concerned that University Regulations permit students who fail the 1st year to enter the 2nd year; this rule does not favor the efficiency of the study programme nor is it in the best interests of the students and should be reviewed.
- (ii) The ACS suggests incorporating areas of BioMedical Technology and Nanomedicine into the curriculum, taking advantage of the collaborations with the 3B's Research Group of the "Laboratory Associado".
- (iii) The Medical Education Unit (MEU) is performing an excellent job in providing evaluation and policy-related data for the Medical School, but it is advisable that it publishes more in relevant peer-reviewed journals.
- (iv) The ACS suggests that the procedures for the combined MD/PhD could be made more flexible in order to recruit more students.
- (v) The ACS recommends that the University develops a programme of sabbaticals for the scientists involved in this programme so that they can take research leave every 5 - years.
- (vi) The ACS advises the School to explore the possibilities of getting financial compensation for the delivery of services to Health Institutions (e.g. Health Services research) and for the participation in clinical trials and the consultation with industry.
- (vii) The ACS strongly suggests that the School establishes a strategy to enhance the visibility of the Medical Curriculum and the ICVS both nationally and internationally.
- (viii) The ACS recommends that the School appoints a Fund-Raising Committee with the objective of promoting and coordinating fund raising activities in general.
- (ix) The continued lack of an animal house is a serious handicap to research activities that should be resolved by the competent authorities with urgency.
- (x) The University/School should consider enlarging this Council with individuals linked to relevant enterprises/business and having important positions in public life.

1. Introduction

The previous External Advisory Committee (EAC) visited the School of Health Sciences for the last time on October 7 – 8, 2007. This was a very special date because it coincided with the official opening of the new building of the School and it was the day of the graduation of the first contingent of students who completed the Medical course at the University of Minho. These events along with the expected publication of the new law regulating Universities Governance led to the discharge of the first EAC after that meeting. Following the approval of the new Statutes of the School, the University appointed a new advisory board “The Advisory Council of the School” (ACS), with the members listed below. On December 9 – 10, 2011, the ACS had its 1st meeting in Braga. Regretfully in the meantime Professor Joaquim Pinto Machado passed away. The ACS pays homage to the memory of the founder of the School, an outstanding personality, a remarkable scholar and an inspiring leader, whose vision shaped the design of the School and the Medical course.

2. General remarks about the site-visit

The ACS compliments the Faculty on the quality of the information it received regarding the Annual Reports of the School and the Life and Health Sciences Research Institute (Instituto de Investigação das Ciências da Vida e Saúde, ICVS).

The organization of the site-visit and the meetings with the Directive Board, teaching staff, responsible staff for undergraduate and post-graduate studies and for research, students and alumni were efficiently planned and most informative. This gave the opportunity to have a lively exchange of ideas with the staff and several students.

3. Main events

The ACS wishes to emphasize that the School can be proud of having made important achievements since its inception. In the domain “Education”, two of these are particularly noteworthy: (i) the introduction of a “New Pathway” for the Medical Degree for students holding a bachelor’s degree; (ii) the collaboration with the US National Board of Medical Examiners (NBME-USA), that has permitted the School to participate in an international experience of assessment of clinical knowledge (along

with Medical Schools from several other countries in the world), and in the setting a basic science exam; the students' results were very good and compared favourably with the best Universities around the world. This provides the ACS with the evidence to assert our conviction that the School is forming graduates of high quality in Medicine.

The ACS also notes the remarkable achievement of the Research Institute that is integrated in the School (ICVS) in its evaluation by the Portuguese Foundation for Science and Technology (FCT) and commends it for obtaining the maximum grade of "Excellent" in 2008. Following this recognition of the high level of the research at ICVS, the Institute established a most welcome partnership with the 3B's Research Group – "Biomaterials, Biodegradables and Biomimetic", to create a new *Associate Laboratory*; the latter was accredited by the Ministry of Science, Technology and High Education, in March 2011.

The ACS is also pleased to note that the ICVS has displayed a high profile of scientific publications. There were 89 papers published in 2010, including five papers in journals with impact factor above 10, and two in journals with an impact factor above 20. In addition, the work developed at the ICVS in 2010 resulted in the successful conclusion of nine PhD theses. In 2011 this trend is sustained with 4 papers in journals with impact factor above 10, including one paper in Nature, among about 80 papers, and 4 PhD theses already concluded.

4. Students.

The performance of the students is being carefully and professionally monitored by the School. Overall this is outstanding as evidenced by the results of the NBME examinations that put Braga students on the top 3rd of the distribution of scores among several US and European Universities. The integration of basic and clinical subjects appears to be successful as corroborated by the fact that the level of performance in Basic Sciences is maintained throughout the course.

Nonetheless the ACS is concerned with respect to the attrition rate in the 1st year and with the fact that a number of students fail more than twice. It appears that the University rules permit that students that fail the 1st year may enter the 2nd year; this rule does not favor the efficiency of the study program nor is it in the best interests of the students and should be reviewed.

5. Educational programmes.

The programmes are being up-dated and whenever necessary improved. The policy of organizing clinical teaching distributed over a network of multiple clinical centers while maintaining the cognitive component centralized at the School, appears to be working very well. Furthermore the integration of the students in Community Health units is an important asset of the Medical course. Nonetheless the ACS notes that the students choose Family Medicine/ Community Medicine only in 3rd place; the reasons for this should be analyzed.

The ACS suggests also that the areas of BioMedical Technology and Nanomedicine should have a stronger position in the curriculum, taking advantage of the collaborations with the 3B's Research Group of the common "Laboratory Associado".

The Medical Education Unit is pursuing a most useful role in policy guidance and in gathering a treasure of data that is being used as pedagogic research material for longitudinal studies. In this context it is advisable that the MEU publishes more in relevant journals in order to better promote the School and its activities and so obtain the recognition it deserves.

The ACS stresses that the examinations to access a medical career are inappropriate because they are only based on memory rather than cognitive abilities and skills, and supports the School in its endeavor to change this obsolete system.

6. Post-graduate programme and 'New Pathway'

The post-graduate programme comprises the Master and PhD in Health Sciences and the PhD in Medicine, as well as the combined MD/PhD programme. The latter opens a challenging opportunity for students who are brave enough to delay the entrance in the medical profession. The timing of this is likely the reason why the number of students following this path is small, with only 2 students who have completed the degree and 4 who are presently enrolled. The ACS suggests that entry into the combined MD/PhD should be made more flexible in order to recruit more students.

Furthermore the School organizes a series of post-graduate courses in a wide range of subjects. The School could use this programme as a selling-point thereby enhancing the visibility of the School both nationally and internationally.

The new pathway, i.e. the Medical Degree for students holding a bachelor's degree started this year and has 18 students enrolled on it, is an excellent initiative.

The School should take this opportunity to make a comparative assessment of the two curricula that will run in parallel and take the opportunity to share good practices between them.

7. Staff – work load, sabbaticals, sustainability.

The ACS praises the staff for their enthusiasm and perseverance in realizing this Medical course and research activity and their outstanding performance, particularly in the present economic climate. Nonetheless the ACS is concerned with the work load of several staff members and recommends that the University develops a programme of sabbaticals for these scientists every 5 years. The School could actively encourage a two-way exchange of staff on sabbaticals so that , while Portuguese scientists would go to foreign laboratories, foreign scientists could be encouraged to take a sabbatical in Braga.

Another concern is how to assure the sustainability of the programme in the long-term. The School is aware of the necessity to recruit a new generation of staff members, both academic and non-academic. The School should develop a clear strategy in this respect since this is an important aspect of the long-term policy of the University/School.

8. Relations with Hospitals and other Health Systems.

The establishment of a Clinical Academic Center is a good initiative. It should give opportunities to realize joint activities, for example in the area of clinical trials. The ACS advises the School to explore the possibilities of getting financial compensation for the delivery of services to Hospitals and to other Health Institutions (e.g. Health Services research) and for the participation in clinical trials and for consultations with industry (such as Pharmaceutical enterprises).

The system to keep highly valued clinical teachers engaged in the School's programme could be improved by implementing an unconventional reward system for these staff.

9. Visibility, Alumni, Fund raising.

The ACS strongly suggests that the School establishes a strategy to enhance the visibility of the Medical Curriculum and the ICVS both nationally and internationally. It may make more use of Websites and other Network communication channels, as well as by having widely advertised “open days” and holding Seminars on scientific topics and themes of Medical Education.

In this context the School could make better use of the Association of Alumni to broadcast the achievements of the School. Regular social contact between the staff and the Alumni should be promoted (e.g. an annual fund raising dinner at the time of graduation).

Furthermore the ACS recommends that the School appoints a Fund-Raising Committee with the objective of promoting and coordinating fund raising activities in general.

10. Research

The site visit of the ACS did not focus on the research activities in sufficient depth, it rather concentrated on the Educational aspects of the School in a wider sense. Therefore the ACS did not examine in detail the research of the ICVS. It may be stated, however (see Section “Main events”) that the research activities of the ICVS appear to be in very good shape, as demonstrated by the high level of publications in 2010 and 2011. The ACS took notice, however, of the continued lack of an animal house that was planned from the beginning. This is a serious handicap that should be solved by the competent authorities with urgency.

11. ACS constitution

The current ACS advises that the University/School could consider enlarging this Committee with individuals linked to relevant enterprises/business and having important positions in public life.

The following members were present at the site visit:

Alistair Warren (University of Sheffield)
 Arsélio Pato de Carvalho (Universidade de Coimbra)
 David McFadyen (ex World Health Organization)
 Fernando Lopes da Silva (University of Amsterdam)
 Joseph S. Gonnella (Thomas Jefferson University)
 Peter Scoles (National Board of Medical Examinations)