



COMPREHENSIVE HEALTH  
RESEARCH CENTRE

# FAQs and Guide

2024

(internal document for FCT's evaluation visit)

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## 1. What is the Fundação para a Ciência e Tecnologia's (FCT's) Evaluation process?

FCT promotes the creation and funds **Research units** classified as Excellent, Very Good and Good. The complete process goes as follows:

- FCT opens call – February 2024
- Research unit submits application – April 2024
- Evaluation:
  - 1<sup>st</sup> step – online presentation and interviews – October 2024
  - 2<sup>nd</sup> step – onsite evaluation visits – December 2024
- Results: February 2025

For the last FCT's research units' evaluation call, in April 2024, CHRC was proposed as a research unit currently funded by FCT, with the option of **merging CHRC with ToxOmics**, in the Health Sciences 3<sup>rd</sup> panel: **Public Health, Nursing, Health Technologies**.

The application submitted is attached to this document.

On October 7<sup>th</sup>, 2024, a group of 12 international evaluators will do online interviews to assess our research unit, following this agenda:

A. Plenary session (1 hour): A brief presentation (up to 20 minutes) of the R&D Unit by the Coordinator. This will be followed by a period of interaction between the Evaluation Panel, the Coordinator, and the R&D Unit team.

B. Successive meetings of the Evaluation Panel, in the following order, only with:

- (i) Doctoral Students (1 hour)
- (ii) Post-Docs and Researchers with a PhD for less than 6 years (1 hour)
- (iii) Senior Researchers (PhDs for more than 6 years) (1 hour)

Between December 2<sup>th</sup> and 6<sup>th</sup> 2024, a group of 12 international evaluators, will do visit evaluations.

## 2. CHRC – What is CHRC and what does it stand for?

CHRC means **Comprehensive Health Research Centre**.

CHRC was established in January 2020 and is characterized by a decentralized structure with centralized activities. It is a centre of excellence that provides a unifying **environment for health research, innovation, and education in public health, lifestyles, nursing, rehabilitation, and clinical research**. CHRC is composed of **healthcare professionals, researchers, academics, patients, and entrepreneurs** who work together towards a common goal.

In its commitment to ensuring healthy lives and promoting wellbeing for people of all ages, CHRC aligns its efforts with prominent international and national agendas. Specifically, CHRC actively contributes to **the FCT 2030 Thematic Research and Innovation (R&I) Agenda**, focusing on "Health, Clinical, and Translational Research," as well as the **United Nations Sustainable Development Goals**, particularly "The 2030 Agenda for Sustainable Development."

CHRC is a cutting-edge centre at **the forefront of health research and innovation**. It includes researchers from **medicine, nutrition, rehabilitation, public health, nursing, psychology, epidemiology, statistics, economy, engineering, and data science**, each bringing unique and complementary scientific backgrounds and expertise. Integrating knowledge from various disciplines, research efforts are focused on **understanding the causes and mechanisms of health issues and developing innovative strategies for prevention, diagnosis, and treatment**.

### 3. What are the CHRC's mission and main objectives?

CHRC is committed to advancing excellence across multiple domains, from research and funding to global collaborations and community engagement. With a clear **focus on innovation, international partnerships, and impactful outcomes**, CHRC will implement a series of strategic initiatives aligned with its mission **to produce innovative preventive and treatment strategies, as well as healthcare delivery based on robust evidence, to improve individual and public health**, ensuring sustainable growth and success.

#### Key Objectives for 2025-2029:

- 1. Research Excellence:** Excellent CHRC's scientific reputation by pioneering multidisciplinary health research, aiming for a significant presence in open-access and top-tier journals with accessible lay language summaries.
- 2. Funding Diversification:** Increase international research funding to support projects across diverse areas including oncology, cardiology, musculoskeletal, and infectious diseases, health promotion, nutrition, physical activity and health policies.
- 3. Collaborative Research Culture:** Foster interdisciplinary teamwork and international partnerships, driving 60% of projects from international collaborations.
- 4. Product Development:** Translate research into impactful healthcare products with at least 5 reaching Technology Readiness Levels (TRL) 8-9 for clinical use.
- 5. Education Expansion:** Develop innovative educational programs with 8 new courses, attracting 600 yearly applicants and supporting 300 master's and 50 PhD completions annually.
- 6. Career Development:** Establish a dedicated department to support career pathways, aiming for 15 new permanent positions and robust mentorship for early PhD researchers.
- 7. Global Influence:** Extend global collaborations with 6 new institutional collaboration protocols for research and training with international top level research institutions (CMU, Harvard, Sheba), and top level national institutions, and adoption of shared best practices in health policy and practice.
- 8. Health Equity and Community Engagement:** Address health disparities and promote health literacy through evidence-based interventions, including collaborations with FIOCRUZ in Brazil and initiatives in African Portuguese-speaking countries and Rwanda.

### 4. How is the CHRC structure?

In the period of 2025-2029, CHRC is undergoing transformative growth, leveraging recent organizational enhancements, including the development of a new campus, integration with the ToxOmics Unit, expansion into specialized Nutrition research, and a strategic partnership with Fraunhofer. The centre will reinforce its leadership in translational research, public health promotion, and technology innovation through strategic collaborations with academia, healthcare entities, industry stakeholders, and government agencies.

**Main management unit** is **NOVA Medical School** and the **coordinator is Helena Canhão**, MD, PhD. The other CHRC's management units are:

- National School of Public Health (ENSP);
- Évora University (UE) (School of Health and Human Development - Department of Sport and Health, and School of Nursing of São João de Deus);
- Fraunhofer AICOS Portugal;



## Why CHRC merged with ToxOmics Unit, incorporated Fraunhofer AICOS Portugal as a management institution and integrated nutrition and metabolism researchers from NMS?

To strategically enhance its capabilities and broaden its research impact:

- A. The collaboration with **Fraunhofer** enables CHRC to forge technology innovation with a higher Technology Readiness Level (TRL), advancing the practical application of research outcomes.
- B. By merging with **ToxOmics**, CHRC boosts its research efforts in genetics and personalized medicine, expanding its expertise in cutting-edge biomedical fields.
- C. Additionally, the integration of **nutrition and metabolism researchers from NMS** strengthens CHRC's focus on occupational health, well-being, and public health promotion through evidence-based research, creating a more comprehensive and multidisciplinary approach to health challenges.

There are **also 24 affiliated institutions**, which had previously established partnership agreements, helping to accomplish CHRC mission:

- **Hospitals** (Unidade Local de Saúde Santa Maria, Unidade Local de Saúde Arrábida, Unidade Local de Saúde São José, Unidade Local de Saúde Lisboa Ocidental, Unidade Local de Saúde Cova da Beira, Unidade Local de Saúde Estuário do Tejo, Hospital de Santo Espírito da Ilha Terceira, E.P.E.R., Hospital Professor Doutor Fernando Fonseca (HFF), IPO Lisboa, Lusíadas, CUF)
- **Academic Institutions** (Politécnico de Lisboa, Instituto Politécnico de Setúbal (IPS), Faculdade de Medicina de Lisboa, Universidade do Algarve (UAlg), Universidade Fernando Pessoa, Universidade Lusófona);
- **Health Companies** (Novartis, Medinava, INCA, CENC);
- **Patients and caregivers advocate** (Liga Portuguesa Contra as Doenças Reumáticas, Patient Innovation)
- **Health administrative centres** (ARS LVT, Instituto Nacional de Saúde Doutor Ricardo Jorge, Fundação Oswaldo Cruz)
- **Research non-profit associations** (Colab Trials, Value for Health CoLAB, Sociedade Portuguesa de Reumatologia (SPR))
- **Start-ups** (C-mo Medical Solutions, NOWACE)

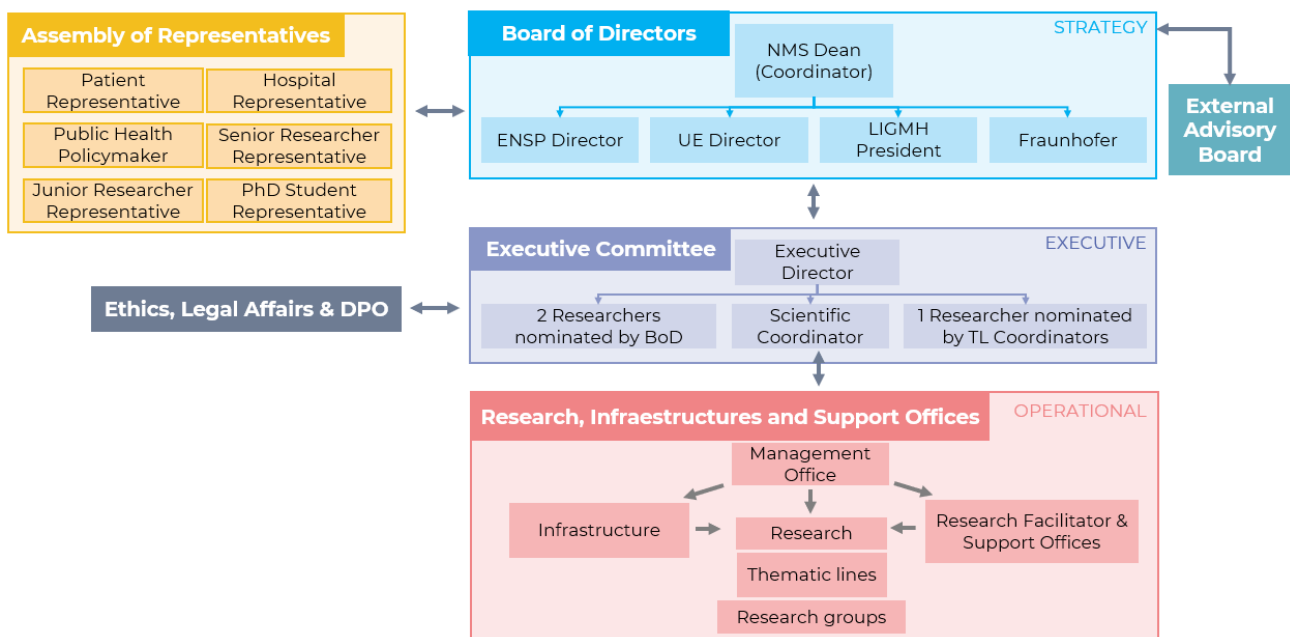
### Research team:

- 217 integrated PhD researchers
- 168 PhD Students
- 16 non-PhD technicians
- 80 collaborative researchers

Total of **481** people involved.

## 5. CHRC Governance (who's in charge of what? How's the communication channel?)

- CHRC has many institutions involved, with very different background and skills. We do not see this as a difficulty, but as a real opportunity to contribute to promote and improve individual's and populations' health.
- The relationship between management institutions is formally established through the Board of Directors. The relationship between all institutions and affiliated partners is done between the Executive Committee, and the Assembly of Representatives.
- Despite the formal relationships, the line of communication is permanently open through the figure of the coordinator or executive director who can deal with the day-to-day situations or put it to debate within the Executive Committee.
- The relationship between researchers is a trade-off between top-down from the members of the executive committee to the thematic lines' coordinators and to the research groups' leaders as well as bottom-up through the relationship and collaborative work of researchers within and between research groups and thematic lines.
- To respond to such a complex research unit, the governance model of the CHRC is well detailed and articulated and implies close, agile and very effective management.



I. **The Board of Directors**, coordinated by the Dean of NMS, sets the strategic direction for CHRC and is composed by the directors of all CHRC management entities.

Its main functions are:

- Oversee strategic planning
- Approve budgets
- Make key financial decisions
- Hold ordinary meetings biannually

II. The **Executive Committee** and Executive Director are responsible for implementing the strategy and overseeing day-to-day operations, ensuring alignment with long-term goals.

Their functions are:

- Implement CHRC's strategic plan
- Set performance indicators
- Allocate resources
- Develop project timelines
- Conduct monthly meetings to monitor progress and financial performance
- Manage the scientific organisation and outputs of the TL and research groups

III. **The External Scientific Advisory Board** will provide expert guidance to the executive committee and review CHRC's work plan annually:

- Geir Arlind Espnes, PhD - Norwegian University of Science and Technology, Norway
- Nikolaos Stergiou, PhD - University of Nebraska Omaha, USA
- Laura Coates, MD, PhD - University of Oxford, UK
- Zohray Talib, MD, PhD - California University of Science and Medicine, USA
- Ronald A. DePinho, MD - The University of Texas MD Anderson Cancer Center, USA

IV. The **Management Office** will guarantee the implementation of the plan of activities that will be overseen on a day-to-day basis. Research activities will be supported by the Research Support Offices and the Infrastructures.

V. **Assembly of Representatives (AR)** is composed of a Patient Representative, a Hospital Representative, a Public Health Policymaker, a Senior Researcher Representative, a Junior Researcher Representative, and a PhD Student Representative. This diverse committee plays a crucial role in guiding CHRC's

activities, providing insights from different perspectives to align research and policy with societal needs. It operates alongside the Board of Directors, contributing to strategic discussions and decision-making.

## 6. Scientific Structure: 14 research groups and 4 thematic lines

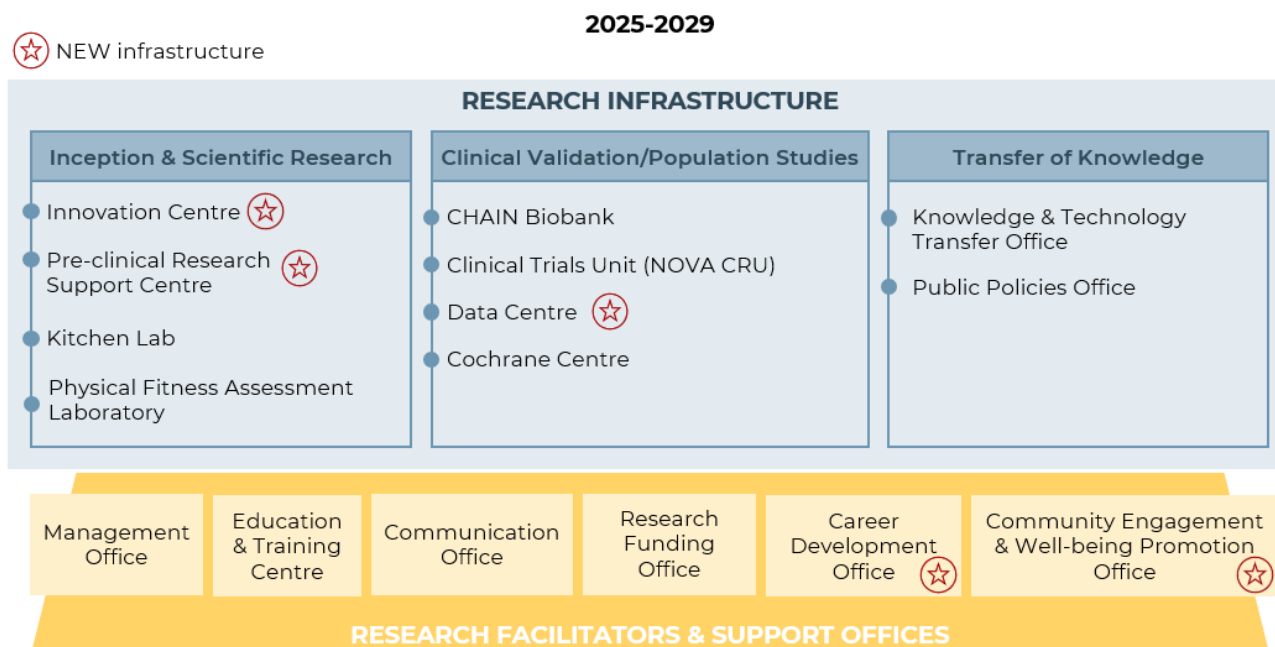
### Research group leaders

- Group 1 - **Nutrition and Metabolism** (*Conceição Calhau*)
- Group 2 - **Human Kinetics** (*Armando Raimundo*)
- Group 3 - **Behavioural Science and Social Innovation** (*Sónia Dias*)
- Group 4 - **Global Mental Health and Human Rights** (*José Caldas de Almeida*)
- Group 5 - **Cardiovascular and Respiratory Research and Innovation** (*Pedro Gonçalves*)
- Group 6 - **Musculoskeletal Health: Prevention, Diagnosis and Treatment** (*Ana Maria Rodrigues*)
- Group 7 - **Translational oncology** (*Isabel Fernandes*)
- Group 8 - **Immune dysregulation, infection, and antibiotics resistance** (*Pedro Póvoa*)
- Group 9 - **Advanced Human Genetics** (*António Sebastião Rodrigues*)
- Group 10 - **Self-care and Patient-centred care (Patient Care)** (*Manuel José Lopes*)
- Group 11 - **Health systems and health policies** (*Christopher Millett*)
- Group 12 - **Healthcare services research: efficiency, equity, sustainability, and access** (*Julian Perelman*)
- Group 13 - **Environmental and occupational health** (*Susana Viegas*)
- Group 14 - **Data and Health Technology** (*Inês Sousa*)

### Thematic line coordinators

- Thematic line I - **Personalised Medicine in High Burden Diseases** (*João Conde*)
- Thematic line II - **Health Promotion and Health Care through Life Course** (*Helena Canhão*)
- Thematic line III - **Health Innovation and Digital Health** (*Francisco Nunes*)
- Thematic line IV - **Climate change, Sustainability and Global Health** (*Ana Catarina Sousa*)

## 7. What are CHRC support services?



During the 2025-2029 period, CHRC will develop five new infrastructures: an Innovation Centre, a Pre-clinical Research Support Centre, a Data Centre, a Career Development Office, and a Community Engagement & Wellbeing Promotion Office. Over the next five years, CHRC's mission will be driven by the essential

contributions of Support, Infrastructure, and Strategic Initiatives, establishing the vital technical and organisational foundations needed to achieve its vision.

- **The Administrative Support**, comprised of: 1) Management Office; 2) Research Funding Office; 3) Communications Office; 4) Career Development Office, will ensure seamless financial, communication, and legal management, empowering researchers to dedicate themselves fully to their work.
- **Technical support offices**, such as: 1) CHAIN Biobank; 2) Pre-Clinical Research Support Centre; 3) Innovation Centre; 4) Clinical Trials Unit (NOVA CRU); 5) Data Centre; 6) Kitchen Lab; 7) Physical Fitness Assessment; 8) Cochrane Centre - will empower researchers to accelerate the translation of discoveries into impactful solutions for communities by providing specialised equipment and expertise.
- Additionally, CHRC presents a **Centre for Education and Training** to develop healthcare professionals and researchers, a **Knowledge & Technology Transfer Office** to facilitate partnerships and manage regulatory affairs, a **Community Engagement and Well-being Promotion Office** to strengthen ties with external stakeholders and support community mental health, and a **Public Policies Office** to translate research into actionable policy recommendations.

## 8. What is CHRC uniqueness? / Why is CHRC different from others?

CHRC's vision emphasizes that research should extend beyond the lab, **solving real-world problems with social impact**. Aligned with the UN's sustainable development goals and the societal challenges outlined by the European Commission, CHRC fosters **multidisciplinary collaboration** to achieve common objectives.

Partnering with leading institutions like NMS, ENSP, UÉ, LIGMH, and Fraunhofer, CHRC integrates expertise from medicine, nutrition, public health, psychology, and engineering. Collaborating with a national ecosystem and fostering international partnerships, CHRC leverages innovation and creativity to address health challenges with impactful solutions.

### • **FACT n° 1 – A UNIFIED RESEARCH: CHRC'S INTERDISCIPLINARY STRENGTH**

The CHRC exemplifies exceptional interdisciplinary collaboration on cancer research, enhancing problem-solving and fostering comprehensive strategies for prevention, diagnosis, and treatment: 1) Public health experts focus on prevention; 2) medical professionals improve diagnostics and treatment, while 3) specialists in physical activity, nursing, and mental health contribute to rehabilitation, patient care, and psychological support.

### • **FACT n° 2 - EMPOWERING TOMORROW: SOCIAL INNOVATION AND SCIENTIFIC KNOWLEDGE**

The CHRC advances social innovation and scientific knowledge through impactful projects like its social prescribing initiative, which integrates healthcare with community support to address lifestyle-related illnesses and social isolation. Another notable project, "Saúde.come," promotes healthy behaviors among food-insecure seniors via a home-based digital tool, demonstrating significant health improvements. These efforts highlight CHRC's commitment to cross-sector collaboration, health promotion, and community impact, distinguishing its approach in public health.

### • **FACT n° 3 - INTERNAL CAPACITY FOR CONDUCTING CLINICAL STUDIES**

The CHRC's uniqueness lies in its strong capacity for clinical studies, supported by NOVA CRU, which provides specialized clinical research services. With CHRC's support, NOVA CRU experienced a 120% increase in clinical studies from 2020 to 2023, 64% of which were international. This capacity spans multiple medical fields and includes clinical investigations with medical devices and diagnostics, underscoring CHRC's role in advancing global health research.







• **FACT n° 4 – CHRC'S IMPACT IN CPLP: ADVANCING COLLABORATIVE HEALTH INITIATIVES**

CHRC plays a pivotal role in the CPLP through projects like the "Nutritional and Food Surveillance System in São Tomé and Príncipe" and "Weaving Ties: Strengthening Professional Training in Nursing." Collaborating with the WHO and participating in an FCT-funded PhD consortium, CHRC stands out in knowledge transfer, capacity building, and addressing public health challenges, making a sustained impact across CPLP member countries.

• **FACT n° 5 - MULTIPLE DATA SOURCES**

The CHRC stands out by unifying clinical data from multiple sources, including the EpiDoc cohort, Reuma.pt, and the COVID-19 Barometer, into a consolidated depository. This harmonization maximizes the potential of data-driven medicine to improve patient outcomes and drive innovation. Supported by robust data governance and adherence to FAIR principles, CHRC leads in integrating diverse health data for impactful research and healthcare advancements.

**9. What were the main achievements of CHRC between 2020-2023?**

|  |  |   |   |
|--|--|---|---|
| <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 10px;">  <b>CRITICAL MASS</b> </div> <p><b>220</b> Integrated PhD researchers <span style="color: orange;">↑ 33%</span></p> <p><b>128</b> PhD students</p> <p><b>60</b> Integrated non-PhD researchers</p>  | <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 10px;">  <b>COMPETITIVE FUNDING</b> </div> <p><b>108</b> Competitive projects</p> <p><b>80 M</b> Funding secured <span style="color: orange;">€ 3X</span></p> <p><b>51%</b> International funding</p>                                 |   |   |
| <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 10px;">  <b>PUBLICATIONS</b> </div> <p><b>79%</b> Open access</p> <p><b>1120</b> Publications in Q1-Q2 journals <span style="color: orange;">↑ 16%</span><br/><small>(54% of all publications)</small></p>  | <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 10px;">  <b>VALUE CREATION</b> </div> <p><b>15</b> Patents      <b>2</b> Spin-offs (UpHill, NOWACE)</p> <p><b>16</b> Prototypes    <b>2</b> EIT Health (ASSIST, TRAINR4U)</p> <p><b>2</b> Technologies (WorthMed, TRIALReady 1.0)</p> |   |   |
| <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 10px;"> <b>INTERNAL FUNDING</b> </div> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>RESEARCH GRANTS</b> </div> <p>Awarded <b>13</b> grants to promote internal collaborative research</p> </td> <td style="width: 50%; vertical-align: top;"> <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>PHD SCHOLARSHIPS</b> </div> <p>Awarded <b>15</b> PhD scholarships to train the new generation of health researchers</p> </td> </tr> </table> | <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>RESEARCH GRANTS</b> </div> <p>Awarded <b>13</b> grants to promote internal collaborative research</p>  | <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>PHD SCHOLARSHIPS</b> </div> <p>Awarded <b>15</b> PhD scholarships to train the new generation of health researchers</p> | <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 10px;"> <b>RESEARCH INFRASTRUCTURE</b> </div> <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>CHAIN BIOBANK</b> </div> <p>Created the CHAIN Biobank</p> <p>Stores <b>&gt; 3 000</b> samples from <b>11 000</b> participants, including blood, serum, plasma, urine and bone</p> |
| <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>RESEARCH GRANTS</b> </div> <p>Awarded <b>13</b> grants to promote internal collaborative research</p>  | <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>PHD SCHOLARSHIPS</b> </div> <p>Awarded <b>15</b> PhD scholarships to train the new generation of health researchers</p>  |   |   |
| <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 10px;"> <b>TRAINING PROGRAMME</b> </div> <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>EDUCATION AND TRAINING OFFICE</b> </div> <p><b>7</b> Training actions promoted</p> <p><b>6</b> CHRC talks</p> <p><b>87</b> Courses &amp; training programmes</p> <p><b>9</b> Collaborative pre- and post-graduate training programmes</p>   | <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 10px;"> <b>SENSE OF BELONGING</b> </div> <div style="background-color: #00838f; color: white; padding: 5px; text-align: center; margin-bottom: 5px;"> <b>ANNUAL SUMMITS</b> </div> <p><b>4</b> CHRC Annual Summits (November 2020, May 2022, November 2022, May 2023)</p>  |   |   |

**Some of CHRC's awards:**

1. Study, "Factors associated with the aggressiveness of care at the end of life for patients with cancer dying in hospital: a nationwide retrospective cohort study in mainland Portugal" - 1st place in the Jorge Horta Award (2021);

2. Project, "Intermittent energy restriction ameliorates adipose tissue-associated inflammation in adults with obesity: a randomised controlled trial" - winner of Project of the Year in Clinical Nutrition; (2022)
3. FLAD Science Award Mental Health - Manuela Silva - 2022.
4. Study, "Contextual factors influencing the use of coercive measures in Portuguese mental health care" - João Monjardino Award 2023;
5. Reumérítus Award 2023 - Helena Canhão - personality with an active role in the field and treatment of patients with rheumatic diseases.

## 10. Examples of inter-institutional collaboration

### 1. Between 2021 – 2023, CHRC encompassed over 709 collaborative publications, such as:

#### a. NMS and ENSP

#### Costs of incident non-hip osteoporosis-related fractures in postmenopausal women from a payer perspective

Anabela Barcelos<sup>1,2,3</sup>  · Judite Gonçalves<sup>1,4,5</sup>  · Céu Mateus<sup>6</sup> · Helena Canhão<sup>1,2,7</sup> · Ana Maria Rodrigues<sup>1,2,8</sup>

#### b. ENSP and Fraunhofer

#### Understanding Mental Health Professionals' Perspectives and Practices Regarding the Implementation of Digital Mental Health: Qualitative Study

Cristina Mendes-Santos<sup>1,2,3,4</sup>, PhD; Francisco Nunes<sup>3</sup>, PhD; Elisabete Weiderpass<sup>5</sup>, PhD; Rui Santana<sup>2</sup>, PhD; Gerhard Andersson<sup>6,7</sup>, PhD

#### c. NMS and LIGMH

#### Unraveling Depressive Symptomatology and Risk Factors in a Changing World

by Rute Dinis Sousa \* , Ana Rita Henriques  , José Caldas de Almeida , Helena Canhão   and Ana Maria Rodrigues 

### 2. Between 2021 – 2023, CHRC encompassed over 223 collaborative projects, such as:

- a. Preventable – Sustainable Care for Rare Tumor Risk Syndromes (NMS and ENSP)
- b. LOCUS: Long Covid – Understanding Symptoms, events and use of services in Portugal (NMS and ENSP)
- c. ELEVATE Project (NMS, ENSP, Fraunhofer)
- d. COVID-19 pandemic: the social distance at the school playground and its effects on children's social-emotional competence and physical activity (University of Évora and ENSP) – CHRC's Grant

### 3. 8 Collaborative Postgraduate Training Programmes:

- I. Digital Health Executive Course - ENSP and NMS
- II. Master in Clinical Research Management (MEGIC) – NMS and ENSP
- III. Master in One Health: Human and Animal Public Health - UÉ and NMS
- IV. Master in Physiotherapy – Musculoskeletal Conditions - ENSP and NMS
- V. Master in Epidemiology, Biostatistics, and Health Research (EPIBIS) – ENSP and NMS
- VI. PhD in Global Public Health - ENSP and NMS
- VII. PhD in Health and Wellness Sciences and Technologies - NMS, ENSP and UÉ
- VIII. PhD in Erasmus Mundus PHOENIX EM JDP Dynamics of Health and Welfare – ENSP and UÉ

## 11. Who are CHRC main competitors?

- **EPIUnit | ISPUP** <https://ispup.up.pt/unidade-de-investigacao-em-epidemiologia-epiunit-2/>
- **GHMT – IHMT** <http://www.ihmt.unl.pt/investigacao/>
- **ISAMB** <https://isamb.medicina.ulisboa.pt/en/home/#>

## 12. Strategic/dynamic SWOT analysis

|                      |  |                   |
|----------------------|--|-------------------|
| <b>STRENGTHS</b>     | <ul style="list-style-type: none"> <li>• National Impact in Public Health</li> <li>• Clinical Research Capacity</li> <li>• Outstanding outputs 2020-2023</li> <li>• Multi/trans-disciplinary profile</li> <li>• Strong governance &amp; decentralised resources and activities with centralised management and support</li> <li>• Strong and diverse ecosystem and network</li> <li>• Increased multidisciplinary projects with technology for impactful outcomes</li> </ul> | <b>WEAKNESSES</b> |
| <b>OPPORTUNITIES</b> | <ul style="list-style-type: none"> <li>• TL aligned with current national policies, societal challenges and UN SDGs (= funding opportunities)</li> <li>• Collaboration with national and international health authorities (e.g., WHO)</li> <li>• AI and Digital Health Expansion</li> <li>• Health Innovation for Aging Populations</li> <li>• Post pandemic valorisation of evidence-based policies</li> </ul>  | <b>THREATS</b>    |
|                      | <ul style="list-style-type: none"> <li>• High heterogeneity in researchers: a threat to a unified vision</li> <li>• Higher demand of resources to respond to high laboratory intensity</li> <li>• Dependence on External Funding</li> </ul>  |                   |
|                      | <ul style="list-style-type: none"> <li>• National funding is scarce, changes continually &amp; demands co-funding - Potential Policy Changes in Research Funding</li> <li>• Health professionals in public sector are underpaid in Portugal</li> <li>• Researchers in Portugal have precarious careers</li> <li>• National bureaucracy (3 public entities)</li> <li>• Technological Advancements Outpacing Resources</li> </ul>  |                   |

## 13. Plans for Career development

CHRC highly values the career development of its members and will establish a Career Development Department to support staff and researchers, foster sustainable career pathways, and oversee the growth of associate/full professor and senior research positions.

The CHRC Career Development Office aims to enhance career trajectories through three key programmes:

1. **Career Development Program:** This initiative provides tools for leaders in academic independent careers and offers strategic advisory for funding individual R&D careers. It also includes a mentoring programme for early PhD researchers.
2. **Ignition Program:** This programme stimulates an entrepreneurial mindset and includes an accelerator programme to turn research results into business plans, while also focusing on the valorisation of results to external stakeholders.
3. **Skills Development Program:** This involves a career trajectory reflection programme to reinforce competencies, advanced training programmes for R&D career development, and coaching workshops to improve the work environment.

Overall, CHRC plans to support 30 early PhD researchers annually through its mentorship programme, establish 15 permanent positions for Associate and Full Professors (including FCT-Tenures), create 15 permanent researcher positions (also including FCT-Tenures), and secure one Chair position within the organisation. Through these initiatives, CHRC demonstrates its commitment to nurturing talent and promoting professional growth within the research community.

## 14. If not funded by FCT, how will it work?

We do not anticipate this possibility, as CHRC is a vital unit for public health, well-being, and research networking in Portugal, and we were rated excellent in the previous evaluation. However, our work during

the 2020-2023 period shows CHRC's commitment to thriving as a research unit, applying for funding and building strong partnerships to ensure a sustainable future alongside FCT funding. This includes seeking support from other sources such as the pharma industry, foundation grants, competitive grants, and international funding.

## 15. Ethics concerns

At CHRC, we prioritize ethical considerations in our research activities, which often involve human participants, including vulnerable populations. We strictly adhere to international standards, such as the Declaration of Helsinki and Good Clinical Practice, and comply with EU and national legislation, ensuring all studies receive Ethics Committee approval before initiation. Informed consent and confidentiality are paramount, especially concerning personal data and genetic material, and we maintain rigorous privacy standards. Additionally, we ensure that all animal research complies with welfare guidelines. Overall, CHRC is dedicated to upholding the highest ethical standards in all our research initiatives.

## 16. Annexes

### The distribution of CHRC members by research group:

#### 1. Nutrition and Metabolism

**Principal Investigator: Conceição Calhau**

**Keyword(s):** Diet; Microbiota; Endocrine disruptors; Metabolic disease

| Integrated PhD holder Researchers |  |
|-----------------------------------|--|
| 1.                                | Conceição Calhau                         |
| 2.                                | Ana Faria                                |
| 3.                                | Diana Marina da Silva Teixeira           |
| 4.                                | André Moreira-Rosário                    |
| 5.                                | João Araújo                              |
| 6.                                | Marta P Silvestre                        |
| 7.                                | Júlio César Leite da Fonseca Rocha       |
| 8.                                | Diogo Pestana                            |
| 9.                                | Cláudia Sofia Fonseca Marques            |
| 10.                               | Catarina Durão                           |
| 11.                               | Ana Gabriela da Cunha Ribeiro            |
| 12.                               | Filomena Isabel Machado Gomes            |
| 13.                               | Vítor Emanuel de Sá Veloso Martins       |
| 14.                               | Ana Rita Oliveira Goes                   |
| 15.                               | Pablo Tomás Carús                        |
| 16.                               | ANA MARIA FERREIRA RODRIGUES             |
| 17.                               | CATARINA DE CASTRO SOBRAL BLANCO LIMBERT |
| 18.                               | Luis Manuel Fernandes Pereira da Silva   |
| 19.                               | Nuno Mendonça                            |
| PhD students                      |  |
| 1.                                | GILBERTO MAIA SANTOS                     |
| 2.                                | Liliana Alexandra Vieira Dinis           |
| 3.                                | Inês Gonçalves de Vasconcelos Castela    |
| 4.                                | Catarina Isabel dos Santos Rodrigues     |
| 5.                                | Rita Cavaglià                            |
| 6.                                | Maria Olívia Pereira Barbosa             |
| 7.                                | Kelli Destri                             |
| 8.                                | Inês Alves                               |
| 9.                                | Nilton João Chantre Leite                |
| 10.                               | Susana Coelho                            |
| 11.                               | Sílvia da Silva Rego                     |

|   |
|---|
| 12. Graça Raimundo                              |
| 13. Andreia Cristina Jales do Espírito Santo    |
| 14. Vitor João Bilro                            |
| 15. Tatiana Isabel Pires Neto                   |
| 16. Moisés Alexandre dos Santos Henriques       |
| <b>Collaborating Researchers</b>                |
| 1. Albino Jorge Carvalho de Sousa Oliveira Maia |
| 2. Israel João de Jesus Macedo                  |
| 3. JOAO FILIPE CANCELA DOS SANTOS RAPOSO        |

## 2. Human Kinetics

**Principal Investigator: Armando Manuel Mendonça Raimundo**

**Keyword(s):** Exercise and Health; Sports Sciences; Psychomotricity; Exercise Physiology

|   |
|---|
| <b>Integrated PhD holder Researchers</b>                  |
| 1. Armando Manuel Mendonça Raimundo                       |
| 2. Bruno Gonçalves  |
| 3. Gabriela Sousa Neves de Almeida                        |
| 4. Hugo Miguel Cardinho Alexandre Folgado                 |
| 5. João Paulo Brites de Sousa                             |
| 6. Jorge Bravo  |
| 7. José Alberto Frade Martins Parraça                     |
| 8. José Francisco Filipe Marmeleira                       |
| 9. Nuno Miguel Prazeres Batalha                           |
| 10. Orlando Fernandes                                     |
| 11. Pablo Tomás Carús                                     |
| 12. Sandra Cristina Cozinheiro Fidalgo Rafael Gamboa Pais |
| 13. David Orlando Alves Ferreira                          |
| 14. FILIPE MANUEL SOARES DE MELO                          |
| 15. MARIA TERESA CARVALHO OLIVEIRA DE SOUSA ALVES         |
| 16. Bruno Emanuel Nogueira Figueira                       |
| 17. Ana Rita do Amaral Cabrita Matias                     |
| 18. Nuno Mendonça   |
| 19. Cristina Isabel Albuquerque Godinho                   |
| 20. Luis Miguel Antunes Gomes                             |
| 21. Helder Alexandre Correia Dores                        |
| 22. Catarina Durão  |
| 23. Nuno Mendonça   |
| 24. José Alberto Castro Guimarães Consciência             |
| 25. Catarina Pereira                                      |
| 26. Guida Veiga   |
| 27. Maria da Graça Duarte da Silva Santos                 |
| <b>PhD students</b>                                       |
| 1. Joana Isabel Palma Machorrinho                         |
| 2. Luís Galhardas   |
| 3. Nilton João Chantre Leite                              |
| 4. Rogério Henriques                                      |
| 5. Soraia Daniela Pires Ferreira                          |
| 6. Alexandre António Ferreira Duarte Martins              |
| 7. Carolina Alexandra Alípio Mourata do Cabo              |
| 8. Cláudia Sofia Orvalho Mendes Amaro dos Santos          |
| 9. Daniela Guerreiro                                      |

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|--|
| 10. Inês Alves                                   |
| 11. Paulo Jorge Granado Pereira                  |
| 12. Paulo Delgado                                |
| 13. Sara Santos                                  |
| 14. Vitor João Bilro                             |
| 15. Joana Alegrete                               |
| 16. Maria Olívia Pereira Barbosa                 |
| 17. Pedro Julião                                 |
| 18. VÍTOR HUGO NUNES PADINHA                     |
| 19. Tatiana Isabel Pires Neto                    |
| 20. JOÃO NUNO PIRES GALRINHO                     |
| 21. RUI PEDRO LETRAS COELHO                      |
| 22. Sofia Alexandra Sousa Da Mata Brites Militar |
| 23. Maria João Baptista Rente                    |
| 24. Patrícia Raquel Esfolá Pereira Balão         |
| 25. Tânia Patrícia Coelho Raposo                 |
| 26. Catarina Joaquim Gonçalves                   |
| <b>Collaborating Researchers</b>                 |
| 1. Ana Isabel Rodrigues de Moraes                |
| 2. André Filipe Paulino da Silva Bento           |
| 3. Madalena Gomes da Silva                       |
| 4. Mário Espada                                  |
| 5. Hugo Filipe Zurzica Rosado                    |
| 6. Jorge Manuel Carvalho Malarranha              |
| 7. Marco Paulo Fonseca Gonçalves                 |
| 8. Tarciano Batista e Siqueira                   |

### 3. Behavioural Science and Social Innovation

**Principal Investigator: Sónia Maria Ferreira Dias**

**Keyword(s):** Health Determinants; Behavioral Insights; Societal transformation; Citizen science

| <b>Integrated PhD holder Researchers</b> |   |
|--|---|
| 1.                                       | Sónia Maria Ferreira Dias               |
| 2.                                       | Alan Vinicius Assunção-Luiz             |
| 3.                                       | Natalie Alice Blackburn                 |
| 4.                                       | Barbara Elzbieta Gonçalves              |
| 5.                                       | Bárbara Pinheiro Machado                |
| 6.                                       | Miriane Lucindo Zucoloto                |
| 7.                                       | Álvaro Francisco Lopes de Sousa         |
| 8.                                       | Ana Gama                                |
| 9.                                       | Ana Rita Oliveira Goes                  |
| 10.                                      | ANA RITA SOUSA PEDRO PARENTE DE ANDRADE |
| 11.                                      | Andreia Heitor Martins da Cunha Leite   |
| 12.                                      | Ausenda Cristina Nelson Machado         |
| 13.                                      | Cristina Isabel Albuquerque Godinho     |
| 14.                                      | Mariana Ramos Sousa Coelho dos Santos   |
| 15.                                      | Marta Moreira Marques                   |
| 16.                                      | Patricia Soares                         |
| 17.                                      | Catarina Pereira                        |
| 18.                                      | Guida Veiga                             |
| 19.                                      | Maria Margarida da Palma Goes           |
| 20.                                      | Rogério Manuel Ferrinho Ferreira        |
| 21.                                      | Ermelinda do Carmo Valente Caldeira     |
| 22.                                      | ANA MARIA FERREIRA RODRIGUES            |

|   |
|---|
| 23. Bruno Miguel Costa Heleno                                       |
| 24. Manuel Maria dos Santos Matroco Gonçalves Pereira               |
| 25. Noelle Coelho Resende   |
| 26. Maria da Conceição Sousa Balsinha                               |
| 27. Adelinda Candeias   |
| 28. Rui Alexandre Godinho da Costa Campos                           |
| 29. Maria João Lopes Marques  |
| <b>PhD students</b>   |
| 1. Ana Rita Serrano de Figueiredo Simeão                            |
| 2. Ana Marta Moniz  |
| 3. André Augusto Martins Vieira                                     |
| 4. Louise Viécili Hoffmeister                                       |
| 5. Maria Rita Marques Gonçalves                                     |
| 6. Ana Sá Machado   |
| 7. AUGUSTO PARRAS ALBUQUERQUE                                       |
| 8. Teresa Dionísio Mestre   |
| 9. Hermenegildo Domingos dos Santos Pateiro                         |
| 10. Jorge Rosário   |
| 11. Sílvia Maria dos Santos Alves Gomes Pedroso                     |
| 12. João Pedro das Neves Grade                                      |
| 13. Élia Quintas  |
| 14. SÍLVIA MARLENE BARRADAS RAMOS                                   |
| 15. Elisabete Cioga   |
| 16. Inês Cardoso  |
| 17. Paula Pimpão  |
| 18. Diogo Alexandre Carvalho Pedroso                                |
| 19. Pedro Centeio Ferraz Gameiro                                    |
| 20. Walaa Kinaan  |
| 21. Matilde Pacheco   |
| 22. Renato Manuel Bernardino dos Reis                               |
| 23. Claudia Dolores Trierweiler Sampaio de Oliveira Corrêa          |
| 24. Inês André Correia  |
| 25. Beatriz Lourenço  |
| 26. Paulo Ney Solari Fernando                                       |
| 27. Rita Mafalda Rocha Sousa do Carmo Fernando                      |
| 28. PATRÍCIA DOMINGOS BELO  |
| 29. Joana Tomás de Albuquerque Osório                               |
| 30. Teresa Filipa Alves de Oliveira Rodrigues                       |
| 31. Esmael Francisco Tomás  |
| 32. José Miguel Martins Ribeiro de Almeida Oliveira                 |
| <b>Collaborating Researchers</b>                                    |
| 1. António Fernando Saldanha Portelada                              |
| 2. Edgar Aníbal Galindo Cota  |
| 3. Maria João Serrano Carapeto                                      |
| 4. Gonçalo Figueiredo Augusto                                       |
| 5. MARIA DA CONCEIÇÃO FERREIRA MONTEIRO LEAL DA COSTA               |
| 6. MARIA DA GLÓRIA SALAZAR D'EÇA COSTA FRANCO                       |
| 7. Maria Dionísia Camões de Mendonça de Oliveira e Silva Laranjeiro |
| 8. Maria João Gouveia Pereira Beja                                  |
| 9. Margarida Gaspar de Matos  |
| 10. Maria Paula Marçal Grilo Lobato de Faria                        |
| 11. Helena Maria de Sousa Lopes Reis do Arco                        |
| 12. Brenda Sousa da Silva   |

#### **4. Global Mental Health and Human Rights**

**Principal Investigator: José Miguel Barros Caldas de Almeida**

**Keyword(s):** Global mental health; Mental health policy and services; Coercion in psychiatric services; Mental health and Human rights

| <b>Integrated PhD holder Researchers</b>             |
|--|
| 1. José Miguel Barros Caldas de Almeida              |
| 2. Patrícia Marques                                  |
| 3. Fernando Miguel Teixeira Xavier                   |
| 4. Joaquim Filipe Candeias de Sousa Gago             |
| 5. Manuel Maria dos Santos Matroco Gonçalves Pereira |
| 6. Sofia Mucharreira de Azeredo Lopes                |
| 7. Maria da Conceição Sousa Balsinha                 |
| 8. Graça Maria Pereira Cardoso                       |
| 9. Teresa Alves dos Reis                             |
| 10. Adelinda Candeias                                |
| 11. Maria da Graça Duarte da Silva Santos            |
| 12. Rui Alexandre Godinho da Costa Campos            |
| 13. Elisabete Alves                                  |
| 14. Maria José Nogueira                              |
| 15. Ana Rita Oliveira Goes                           |
| 16. Cristina Isabel Albuquerque Godinho              |
| 17. Maria João Lopes Marques                         |
| 18. Noelle Coelho Resende                            |
| 19. José Francisco Filipe Marmeleira                 |
| 20. Maria Manuela Correia Vieira da Silva            |
| <b>PhD students</b>                                  |
| 1. ANA RITA MOURA ALEXANDRE                          |
| 2. Ugne Grigaite                                     |
| 3. Bárbara Pedrosa                                   |
| 4. Deborah Aluh                                      |
| 5. Rafaela Antunes Moreira                           |
| 6. Aramid José Fajardo Gomes                         |
| 7. Sílvia do Carmo Bento Conde                       |
| 8. Elena Pimentel Fonseca                            |
| 9. Beatriz Lourenço                                  |
| 10. Teresa Filipa Alves de Oliveira Rodrigues        |
| 11. Rute Filipa Dinis de Sousa                       |
| 12. Joana Isabel Palma Machorrinho                   |
| 13. Maria Rita Marques Gonçalves                     |
| 14. Ana Pedro Sousa e Costa                          |
| 15. Hermenegildo Domingos dos Santos Pateiro         |
| 16. Celso Filipe Boto Silva                          |
| 17. Pedro Miguel Morgado Amaro                       |
| 18. Ana Sofia Novais Rosinhas                        |
| 19. Mariana Tomé Pereira Alfaiate                    |
| 20. Maria João Revés Mendes Silva                    |
| 21. SÍLVIA MARLENE BARRADAS RAMOS                    |
| 22. Jorge Manuel Curvinha Ramalho                    |
| 23. Filipa Marcelino Palma                           |
| 24. Ana Catarina Viegas Gaspar                       |
| 25. Patrícia Raquel Esfolá Pereira Balão             |
| 26. Sofia Guerra-Paiva                               |
| 27. JOÃO NUNO PIRES GALRINHO                         |
| <b>Collaborating Researchers</b>                     |
| 1. Ana Margarida Pereira Cardoso                     |
| 2. Albino Jorge Carvalho de Sousa Oliveira Maia      |
| 3. Jaime Manuel Novo Grácio                          |
| 4. Pedro Afonso Rodrigues de Gouveia                 |



## 5. CardioVascular and Respiratory Research and Innovation

**Principal Investigator: Pedro de Araújo Gonçalves**

**Keyword(s):** Biomarkers; Digital Health; Coronary Artery Disease; Chronic Cough

| <b>Integrated PhD holder Researchers</b> |   |
|--|---|
| 1.                                       | Pedro de Araújo Gonçalves                             |
| 2.                                       | Ana Teresa de Matos Timóteo                           |
| 3.                                       | Helder Alexandre Correia Dores                        |
| 4.                                       | Manuel de Sousa Almeida                               |
| 5.                                       | NUNO MANUEL BARREIROS NEUPARTH                        |
| 6.                                       | Sérgio Miguel Matoso Laranjo                          |
| 7.                                       | RICARDO ALEXANDRE DA SILVA SANTOS AFONSO              |
| 8.                                       | Pedro Miguel Carvalho Diogo Carreiro Martins          |
| 9.                                       | Paula Cristina de Carvalho Vidal Reis                 |
| 10.                                      | Sónia Maria Ferreira Dias                             |
| 11.                                      | Ana Gama  |
| 12.                                      | Ana Rita Oliveira Goes                                |
| 13.                                      | ANTÓNIO ALEXANDRE PINTO BUGALHO DE ALMEIDA            |
| 14.                                      | Luís Miguel Cruz Coelho                               |
| 15.                                      | Paulo Jorge Pereira Cruz Paixão                       |
| 16.                                      | Pedro Manuel Sarmiento Rodrigues Póvoa                |
| 17.                                      | Diana Marina da Silva Teixeira                        |
| 18.                                      | Armando Manuel Mendonça Raimundo                      |
| 19.                                      | Jorge Bravo   |
| 20.                                      | Sandra Cristina Cozinheiro Fidalgo Rafael Gamboa Pais |
| 21.                                      | Maria Margarida da Palma Goes                         |
| 22.                                      | MARIA DO CÉU MENDES PINTO MARQUES                     |
| 23.                                      | André Valério Raposo Carreiro                         |
| <b>PhD students</b>                      |   |
| 1.                                       | João Carlos Gaspar Marques                            |
| 2.                                       | Catarina Joaquim Gonçalves                            |
| 3.                                       | Ana Rita Serrano de Figueiredo Simeão                 |
| 4.                                       | Renato Manuel Bernardino dos Reis                     |
| 5.                                       | André Augusto Martins Vieira                          |
| 6.                                       | Inês André Correia                                    |
| 7.                                       | Joana Seringa   |
| <b>Collaborating Researchers</b>         |   |
| 1.                                       | Pedro Nuno Martins Pires Coelho                       |
| 2.                                       | Andreia Ferreri Cerqueira                             |
| 3.                                       | André Filipe Paulino da Silva Bento                   |
| 4.                                       | Filipe Froes  |

## 6. Musculoskeletal Health: Prevention, Diagnosis and Treatment

**Principal Investigator: ANA MARIA FERREIRA RODRIGUES**

**Keyword(s):** Musculoskeletal diseases; New models of care delivery; Epidemiology; Digital health

| <b>Integrated PhD holder Researchers</b>                  |
|---|
| 1. ANA MARIA FERREIRA RODRIGUES                           |
| 2. Ana Filipa Sousa Pestana Mourão                        |
| 3. ELSA DO CÉU DIAS DE ALMEIDA FRAZÃO MATEUS              |
| 4. Helena Canhão  |
| 5. Jaime Branco   |
| 6. Nuno Mendonça  |
| 7. Eduardo B Cruz   |
| 8. Rita Noélia Silva Fernandes                            |
| 9. Carmen Caeiro  |
| 10. Diogo André da Fonseca Pires                          |
| 11. Luis Miguel Antunes Gomes                             |
| 12. Daniela Sofia Albino Costa                            |
| 13. Carla Mendes Pereira                                  |
| 14. Pedro Almeida Laires                                  |
| 15. Conceição Calhau                                      |
| 16. José Alberto Castro Guimarães Consciência             |
| 17. Armando Manuel Mendonça Raimundo                      |
| 18. João Paulo Brites de Sousa                            |
| 19. Sandra Cristina Cozinheiro Fidalgo Rafael Gamboa Pais |
| 20. Francisco Maria Cruz Nunes                            |
| 21. Inês Nunes de Sousa Soares                            |
| <b>PhD students</b>                                       |
| 1. Helena Cristina Fernandes dos Santos Cabrita Carneiro  |
| 2. Kelli Destri   |
| 3. Anabela Barcelos                                       |
| 4. Susana Patrícia Tinoco da Silva Duarte                 |
| 5. Rute Filipa Dinis de Sousa                             |
| 6. Lara Gil Gomes de Campos                               |
| 7. Andreia Isabel Capucho dos Santos                      |
| 8. Ana Rita Oliveira Henriques                            |
| 9. João Miguel Pereira Mateus Baptista Gonçalves          |
| 10. Ana Margarida Rodrigues Dâmaso                        |
| 11. Isabel Correia  |
| 12. Alexandre Moniz                                       |
| 13. José Miguel Cruz de Sousa                             |
| 14. José Manuel Afonso Moreira                            |
| 15. Joana Alegrete  |
| 16. Sara Luísa Barão Vaz                                  |
| 17. Sílvia Maria dos Santos Alves Gomes Pedroso           |
| 18. André Augusto Martins Vieira                          |
| <b>Collaborating Researchers</b>                          |
| 1. Cristina Rosa Soares Lavareda Baixinho                 |
| 2. André Filipe Paulino da Silva Bento                    |
| 3. Hugo Filipe Zurzica Rosado                             |
| 4. Marco Paulo Fonseca Gonçalves                          |
| 5. Tarciano Batista e Siqueira                            |

## 7. *Translational oncology*

**Principal Investigator:** Isabel Fernandes

**Keyword(s):** Cancer-related research; Translational and basic research; Cancer policy; Therapy and diagnosis

| <b>Integrated PhD holder Researchers</b>       |
|--|
| 1. Isabel Fernandes                            |
| 2. Eduardo Netto                               |
| 3. João Conde                                  |
| 4. Rui Dinis                                   |
| 5. Sónia Maria Ferreira Dias                   |
| 6. Inês Fronteira                              |
| 7. Patrícia Marques                            |
| 8. Ana Gama                                    |
| 9. Bruno Miguel Costa Heleno                   |
| 10. Hugo Silva Carvalho Pinto Marques          |
| 11. António Sebastião Rodrigues                |
| 12. Bárbara Mendes                             |
| 13. João Gonçalves                             |
| 14. João Miguel de Oliveira Conriot            |
| 15. Michel Kranendonk                          |
| 16. Susana Maria Nunes da Silva Duarte Catana  |
| 17. Ana Gabriela da Cunha Ribeiro              |
| 18. Rômulo Paes de Sousa                       |
| <b>PhD students</b>                            |
| 1. Jhenifer de Farias Oliveira                 |
| 2. Diana Isabel Pacheco de Sousa               |
| 3. João Pedro Vicente Pais                     |
| 4. Diana Castro Peixoto                        |
| 5. Catarina Martins                            |
| 6. Maria Beatriz Mourato                       |
| 7. Walaa Kinaan                                |
| 8. Daniela Guerreiro                           |
| 9. Dina Isabel Filipe Carpinteiro Durão        |
| 10. Frederico Fonseca                          |
| 11. Inês André Correia                         |
| 12. Rita Mafalda Rocha Sousa do Carmo Fernando |
| 13. Dulce Maria Lourenço Miranda               |
| <b>Collaborating Researchers</b>               |
| 1. Gonçalo Figueiredo Augusto                  |
| 2. Paulo Jorge Nogueira                        |
| 3. Sara Simões Dias                            |
| 4. Maria Paula Marçal Grilo Lobato de Faria    |

## **8. Immune dysregulation, infection, and antibiotics resistance**

**Principal Investigator: Pedro Manuel Sarmiento Rodrigues Póvoa**

**Keyword(s):** Infection; Sepsis; Innate immune response; Microbial resistance

| <b>Integrated PhD holder Researchers</b>        |
|---|
| 1. Pedro Manuel Sarmiento Rodrigues Póvoa       |
| 2. CATARINA DE CASTRO SOBRAL BLANCO LIMBERT     |
| 3. João Farela Neves                            |
| 4. JORGE NATALINO RAMOS LIMA                    |
| 5. Luis Miguel Nabais Borrego                   |
| 6. Maria de Jesus Fernandes Chasqueira          |
| 7. Nelia Sofia Augusto Gouveia                  |
| 8. Paulo Jorge Pereira Cruz Paixão              |
| 9. Ana Catarina Silva Gregório da Costa Martins |
| 10. Catarina Maria Machado França Gouveia       |
| 11. Luís Miguel Cruz Coelho                     |

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|---|
| 12. Margarida Pires Simões                                    |
| 13. Paulo Jorge dos Santos Sousa                              |
| 14. CRISTINA MARIA DE PAIVA CHAVES LOPES CAROÇA TOMÉ DE JESUS |
| 15. João Carlos Lopes Simões do Paço                          |
| 16. Luis Bento  |
| 17. Luis Manuel Fernandes Pereira da Silva                    |
| 18. Maria de Fátima Carvalho Serrano                          |
| 19. Júlio César Leite da Fonseca Rocha                        |
| <b>PhD students</b>   |
| 1. Maria Carolina Paulino                                     |
| 2. Maria Madalena Ravasco Mendes Lopo Tuna                    |
| 3. Sara Querido Conde   |
| 4. Miguel Angelo Simão Dias                                   |
| 5. Matilde Pacheco  |
| 6. Tânia Patrícia Coelho Raposo                               |
| 7. Paulo Ney Solari Fernando                                  |
| 8. NADIA BORGES Charepe                                       |
| 9. Maria João da Costa Nunes Lobão                            |
| 10. Cristiana da Palma Von Rekowski                           |
| 11. Tiago Alexandre Henrique Fonseca                          |
| 12. ANA ISABEL LOUREIRO VIEGAS                                |
| 13. Luís Filipe Pereira Todo Bom                              |
| 14. Bárbara Alexandra de Kong Cardoso                         |
| 15. Marta Sofia Forte Dias                                    |
| <b>Collaborating Researchers</b>                              |
| 1. Israel João de Jesus Macedo                                |
| 2. Filipe Froes   |
| 3. Rúben Alexandre Dinis Araújo                               |
| 4. Mário Jorge Simão Silva                                    |
| 5. Maria Teresa Lopes   |
| 6. Ana Beatriz Nunes  |
| 7. PEDRO GONÇALVES CASACA CARVALHO                            |

## 9. *Advanced Human Genetics*

**Principal Investigator: António Sebastião Rodrigues**

**Keyword(s):** Human genetics; Toxicogenomics; Nanotoxicology; Biomonitoring

|   |
|---|
| <b>Integrated PhD holder Researchers</b>          |
| 1. António Sebastião Rodrigues                    |
| 2. Ana Maria Pinho Tavares                        |
| 3. ANA PAULA SILVA AZEVEDO                        |
| 4. Bárbara Mendes                                 |
| 5. Bruno Daniel Costa Gomes                       |
| 6. Célia Cristina Barbosa Ventura                 |
| 7. Deborah Penque                                 |
| 8. Maria Henriqueta Dias Lourenço Garcia Louro    |
| 9. João Gonçalves                                 |
| 10. João Miguel de Oliveira Conriot               |
| 11. Joaquim Fernando Tomaz Rodrigues Moita Calado |
| 12. Luís Miguel Ramos Vieira                      |
| 13. Maria João Aleixo da Silva                    |
| 14. Michel Kranendonk                             |
| 15. Nelson da Cruz Soares                         |
| 16. Susana Maria Nunes da Silva Duarte Catana     |
| 17. Francisco Vaz de Carvalho Esteves             |
| 18. CATARINA DE CASTRO SOBRAL BLANCO LIMBERT      |

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|---|
| 19. MARIA SARAIVA MENDES ASSUNÇÃO       |
| 20. João Diogo Osório de Castro Conde   |
| 21. Hugo Silva Carvalho Pinto Marques   |
| <b>PhD students</b>                     |
| 1. Tânia Isabel Trindade Lapão Rocha    |
| 2. Catarina Carneiro Silva              |
| 3. Nádia José David Vital               |
| 4. Dina Isabel Filipe Carpinteiro Durão |
| 5. SOFIA MARIA SENTIEIRO NEVES          |
| 6. Miguel Angelo Simão Dias             |
| 7. Diogo Luís Raposo da Costa Ribeiro   |
| 8. Viviana Modesto Caldeira             |
| 9. Diana Isabel Pacheco de Sousa        |
| 10. João Pedro Vicente Pais             |
| 11. Tiago Alexandre Henrique Fonseca    |
| 12. Sara Querido Conde                  |
| 13. Jhenifer de Farias Oliveira         |
| <b>Collaborating Researchers</b>        |
| 1. Carina Alexandra Fernandes Ladeira   |
| 2. Ricardo Assunção                     |
| 3. Luis Silva Santos                    |

## 10. Self-care and Patient-centered care (Patient Care)

**Principal Investigator: MANUEL JOSÉ LOPES**

**Keyword(s):** Multimorbidity, functional dependence & self-care; Patient experience; Patient empowerment and advocacy; Patient-centered health services

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| <b>Integrated PhD holder Researchers</b>         |
| 1. MANUEL JOSÉ LOPES                             |
| 2. Ana Rita de Jesus Maria                       |
| 3. ANTÓNIO ALEXANDRE PINTO BUGALHO DE ALMEIDA    |
| 4. Bruno Miguel Costa Heleno                     |
| 5. João Carlos Lopes Simões do Paço              |
| 6. Luis Manuel Fernandes Pereira da Silva        |
| 7. Maria de Fátima Carvalho Serrano              |
| 8. PEDRO ALBERTO BATISTA BRISSOS DE SOUSA ESCADA |
| 9. José Alberto Castro Guimarães Consciência     |
| 10. Catarina Susana Ferreira Moita               |
| 11. Diana Arvelos Mendes                         |
| 12. JOÃO MANUEL VALENTE NABAIS                   |
| 13. Lara Manuela Guedes de Pinho                 |
| 14. MARIA DO CÉU MENDES PINTO MARQUES            |
| 15. Maria Margarida Santana Fialho Sim-Sim       |
| 16. Maria Otília Brites Zangão                   |
| 17. Paula Maria Broeiro Gonçalves Broeiro        |
| 18. Paulo Jorge dos Santos Sousa                 |
| 19. Marta Moreira Marques                        |
| 20. Sónia Maria Ferreira Dias                    |
| 21. Ana Gama                                     |
| 22. Ana Filipa Sousa Pestana Mourão              |
| 23. Helena Canhão                                |
| 24. JORGE NATALINO RAMOS LIMA                    |
| 25. Pedro Miguel Carvalho Diogo Carreiro Martins |
| 26. Teresa Catarina Páscoa Madeira               |
| 27. Diogo André da Fonseca Pires                 |

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|---|
| 28. Marta P Silvestre   |
| 29. Maria da Conceição Sousa Balsinha                         |
| 30. Ana Rita do Amaral Cabrita Matias                         |
| 31. Catarina Pereira  |
| 32. Guida Veiga   |
| 33. Maria da Graça Duarte da Silva Santos                     |
| 34. Felismina Mendes  |
| 35. CÉSAR JOÃO VICENTE DA FONSECA                             |
| <b>PhD students</b>   |
| 1. Miguel Cruz de Sousa                                       |
| 2. NADIA BORGES Charepe                                       |
| 3. KÁTIA AUGUSTA XAVIER FURTADO                               |
| 4. Ana Pedro Sousa e Costa                                    |
| 5. Marta Sofia Moreira Marques da Fonseca Encarnação Ferreira |
| 6. Carlos Manuel Ramos Martins                                |
| 7. Eunice Maria Costa Pereira dos Santos                      |
| 8. Rute Pires   |
| 9. Pedro Miguel Morgado Amaro                                 |
| 10. Vânia Raquel Dias Nascimento                              |
| 11. Ana Cristina Canhoto Ferrão                               |
| 12. Telma Quaresma  |
| 13. Hugo Daniel Acúrcio Garcia Salgueiro                      |
| 14. Ana Sofia Novais Rosinhas                                 |
| 15. Sandra Mónica Vinhas Gomes                                |
| 16. Mariana Tomé Pereira Alfaiate                             |
| 17. Ana Cristina Maia Rocha                                   |
| 18. Maria João Revés Mendes Silva                             |
| 19. Andreia Cristina Jales do Espírito Santo                  |
| 20. Luís Filipe Pereira Todo Bom                              |
| 21. Jorge Manuel Curvinha Ramalho                             |
| 22. Ana Catarina Viegas Gaspar                                |
| 23. Catarina Pinto  |
| 24. Ana Maria Guégués da Silva Dias                           |
| 25. Vânia Martins   |
| 26. Elsa Salgueiro  |
| 27. Inês Caetano Santos                                       |
| <b>Collaborating Researchers</b>                              |
| 1. Gonçalo Maria MORÃO NETO D'ALMEIDA                         |
| 2. Ana Lúcia da Silva João                                    |
| 3. Ana Maria Aguiar Frias                                     |
| 4. Maria Antónia Fernandes Caeiro Chora                       |
| 5. Maria Dulce Damas Cruz                                     |
| 6. Maria Laurência Grou Parreirinha Gemito                    |
| 7. Maria da Luz Ferreira Barros                               |
| 8. SUSANA MARIA SOBRAL MENDONÇA                               |
| 9. Ana Lúcia Caeiro Ramos                                     |
| 10. Andreia Ferreri Cerqueira                                 |
| 11. Camila Aloisio Alves                                      |
| 12. Carlos Laranjeira   |
| 13. Célia Cristina Casaca Soares                              |
| 14. Fernanda Maria Gomes da Costa Teixeira Marques            |
| 15. Lucília Rosa Mateus Nunes                                 |
| 16. Catarina Viegas Dias                                      |

## **11. Health systems and health policies**

**Principal Investigator: Christopher Millett**

**Keyword(s):** Policy evaluation; Social and environmental determinants of health; Health inequalities; Quasi-experimental methods

| <b>Integrated PhD holder Researchers</b>                      |
|---|
| 1. Christopher Millett  |
| 2. Luis Roxo  |
| 3. Adalberto Campos Fernandes                                 |
| 4. BALTASAR EMANUEL GUERREIRO NUNES BRAVO NUNES               |
| 5. Carlos Manuel Matias Dias                                  |
| 6. João Miguel Valente Cordeiro                               |
| 7. João Almeida Santos  |
| 8. Mafalda Bernes de Sousa Uva                                |
| 9. Rarianne Carvalho Peruhype                                 |
| 10. Vasco Ricoca Freire Duarte Peixoto                        |
| 11. Maria Manuela Correia Vieira da Silva                     |
| 12. José Miguel Barros Caldas de Almeida                      |
| 13. Fernando Miguel Teixeira Xavier                           |
| 14. Luis Miguel Antunes Gomes                                 |
| 15. CRISTINA MARIA DE PAIVA CHAVES LOPES CAROÇA TOMÉ DE JESUS |
| 16. ELSA DO CÉU DIAS DE ALMEIDA FRAZÃO MATEUS                 |
| 17. Helena Canhão   |
| 18. Isabel Fernandes  |
| 19. Jaime Branco  |
| 20. Joaquim Filipe Candeias de Sousa Gago                     |
| 21. Manuel Maria dos Santos Matroco Gonçalves Pereira         |
| 22. Pedro de Araújo Gonçalves                                 |
| 23. Sofia Mucharreira de Azeredo Lopes                        |
| 24. Ana Rita Londral  |
| 25. Romulo Paes de Sousa                                      |
| 26. Fernando Augusto Bozza                                    |
| 27. MANUEL JOSÉ LOPES   |
| 28. Anabela Coelho  |
| 29. Felismina Mendes  |
| 30. Rita Maria Payan Martins Pinto Carreira                   |
| 31. Graça Maria Pereira Cardoso                               |
| <b>PhD students</b>   |
| 1. Deborah Aluh   |
| 2. Ugne Grigaite  |
| 3. Bárbara Pedrosa  |
| 4. Rute Filipa Dinis de Sousa                                 |
| 5. Ana Rita Serrano de Figueiredo Simeão                      |
| 6. Ana Marta Moniz  |
| 7. Pedro Julião   |
| 8. Ana Sá Machado   |
| 9. João Pedro das Neves Grade                                 |
| 10. Ana Margarida Rodrigues Dâmaso                            |
| 11. Maria Carolina Paulino                                    |
| 12. Sofia Guerra-Paiva  |
| 13. José Chen Xu  |
| 14. Eunice Maria Costa Pereira dos Santos                     |
| 15. Fatima Cano   |
| 16. Vânia Raquel Dias Nascimento                              |
| 17. Rui de Oliveira Pires Monteiro                            |
| 18. Inês Cardoso  |
| 19. Ana Maria Guégués da Silva Dias                           |
| 20. Ana Marta Alexandre Veríssimo                             |
| 21. Claudia Dolores Trierweiler Sampaio de Oliveira Corrêa    |

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| 22. Daniel Brás                                  |
| 23. Sónia Isabel Agostinho Romano                |
| 24. Margarida Isabel Grenha Perdigão             |
| 25. Jorge Rosário                                |
| 26. Pedro Miguel Morgado Amaro                   |
| 27. Graça Raimundo                               |
| 28. Aramid José Fajardo Gomes                    |
| <b>Collaborating Researchers</b>                 |
| 1. Ana Brito Costa Pereira                       |
| 2. Carlota Zenaide Sousa Louro da Cruz           |
| 3. JOAO FILIPE CANCELA DOS SANTOS RAPOSO         |
| 4. Bernardo Carvalho de Oliveira Cabral de Páris |
| 5. Catarina de Oliveira Belmonte Silvério        |
| 6. Mariana Nogueira Correia                      |

## **12. Healthcare services research: efficiency, equity, sustainability, and access**

**Principal Investigator: Julian Alejandro Perelman**

**Keyword(s):** Access and equity; Sustainability and efficiency; Innovative clinical and management models; Healthcare integration and collaborative models

|   |
|---|
| <b>Integrated PhD holder Researchers</b>                |
| 1. Julian Alejandro Perelman                            |
| 2. Romulo Paes de Sousa                                 |
| 3. Fernando Augusto Bozza                               |
| 4. Noelle Coelho Resende                                |
| 5. Maria João Lopes Marques                             |
| 6. André Peralta Santos                                 |
| 7. Irina Kislava  |
| 8. Ana Margarida Pignateli Vasconcelos de Assunção Alho |
| 9. Carla Sandra Martins Pereira                         |
| 10. Carolina Santos                                     |
| 11. Daniela Brandão                                     |
| 12. Hugo Lopes  |
| 13. Inês Fronteira                                      |
| 14. Isabel Garcia da Fonseca e Faro de Albuquerque      |
| 15. Joana Alves   |
| 16. João António Catita Garcia Pereira                  |
| 17. Klára Dimitrovová                                   |
| 18. Paulo Alexandre Faria Boto                          |
| 19. Paulo Jorge dos Santos Sousa                        |
| 20. Pedro Almeida Lares                                 |
| 21. Rui Santana   |
| 22. Sílvia da Silva Lopes                               |
| 23. Ricardo Alves                                       |
| 24. Miguel Costa  |
| 25. Maria Sofia Rodrigues Pintado De Oliveira Martins   |
| 26. Rui Pedro Pereira de Almeida                        |
| 27. Anabela Coelho                                      |
| 28. Ana Margarida Molhinho Advinha                      |
| 29. Felismina Mendes                                    |
| 30. Bruno Miguel Costa Heleno                           |
| 31. Fernando Miguel Teixeira Xavier                     |
| 32. Isabel Fernandes                                    |
| 33. Jaime Branco  |



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| 34. Pedro Manuel Sarmiento Rodrigues Póvoa       |
| 35. Lúcia Domingues                              |
| 36. Hugo Silva Carvalho Pinto Marques            |
| 37. MANUEL JOSÉ LOPES                            |
| 38. Lara Manuela Guedes de Pinho                 |
| 39. José Miguel Barros Caldas de Almeida         |
| <b>PhD students</b>                              |
| 1. Alexandre Moniz                               |
| 2. Diogo Luís Raposo da Costa Ribeiro            |
| 3. Maria João da Costa Nunes Lobão               |
| 4. José Manuel Afonso Moreira                    |
| 5. Sofia Guerra-Paiva                            |
| 6. Sara Luísa Barão Vaz                          |
| 7. João Pedro Lavado Fernandes                   |
| 8. Graça Raimundo                                |
| 9. Frederico Fonseca                             |
| 10. Ana Marta Alexandre Veríssimo                |
| 11. Maria João Ferreira de Carvalho              |
| 12. Dulce Maria Lourenço Miranda                 |
| 13. Sónia Isabel Agostinho Romano                |
| 14. Pedro Nuno Frias Marques Gonçalves           |
| 15. Bárbara Alexandra de Kong Cardoso            |
| 16. Margarida Isabel Grenha Perdigão             |
| 17. Ana Rita Serrano de Figueiredo Simeão        |
| 18. Louise Viecili Hoffmeister                   |
| 19. Jorge Rosário                                |
| 20. Maria da Graça Lopes Cunha                   |
| 21. Ana Cristina Canhoto Ferrão                  |
| 22. Élia Quintas                                 |
| 23. Paula Pimpão                                 |
| 24. Vânia Lúcia Domingues Martins                |
| 25. Joana Tomás de Albuquerque Osório            |
| 26. Esmael Francisco Tomás                       |
| 27. Maria Rita Marques Gonçalves                 |
| 28. Susana Patrícia Tinoco da Silva Duarte       |
| 29. Deborah Aluh                                 |
| 30. Celso Filipe Boto Silva                      |
| Telma Quaresma                                   |
| <b>Collaborating Researchers</b>                 |
| 1. Francisco Miguel Correia Madeira              |
| 2. Paulo Jorge Nogueira                          |
| 3. Augusta Maria Carvalho Teixeira Marques       |
| 4. Iolanda Baptista Gonçalves Caires Correia     |
| 5. Bernardo Carvalho de Oliveira Cabral de Páris |
| 6. Catarina de Oliveira Belmonte Silvério        |
| 7. Mariana Nogueira Correia                      |
| 8. Paula Alexandra Ferreira Da Costa             |
| 9. Patrícia Isabel Serote Lopes                  |

### **13. Environmental and occupational health**

**Principal Investigator: Susana Viegas**

**Keyword(s):** Environmental & occupational determinants of health; Exposure and risk assessment; Indoor and outdoor pollution; Chemicals risk assessment and management

**Integrated PhD holder Researchers**

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|--|
| 1. Susana Viegas                                   |
| 2. Marília Raquel Bettencourt Silva Paulo          |
| 3. CARLA ALEXANDRA DA CONCEIÇÃO TELES MARTINS      |
| 4. Ema Maria Sacadura Leite Resende                |
| 5. Florentino Manuel dos Santos Serranheira        |
| 6. Sónia Cristina Namorado Gonçalves Calado Vieira |
| 7. Ana Catarina Almeida Sousa                      |
| 8. MANUEL RAMIRO DIAS PASTORINHO                   |
| 9. Rita Maria Payan Martins Pinto Carreira         |
| 10. Carla Lança                                    |
| 11. MÁRCIO CÉSAR LINO RIBEIRO NAVALHO              |
| 12. Maria de Jesus Fernandes Chasqueira            |
| 13. NUNO MANUEL BARREIROS NEUPARTH                 |
| 14. PEDRO ALBERTO BATISTA BRISSOS DE SOUSA ESCADA  |
| 15. Pedro Miguel Carvalho Diogo Carreiro Martins   |
| 16. Eduardo B Cruz                                 |
| 17. Ana Maria Pinho Tavares                        |
| 18. ANA PAULA SILVA AZEVEDO                        |
| 19. Bruno Daniel Costa Gomes                       |
| 20. Célia Cristina Barbosa Ventura                 |
| 21. Deborah Penque                                 |
| 22. Francisco Vaz de Carvalho Esteves              |
| 23. Maria Henriqueta Dias Lourenço Garcia Louro    |
| 24. Luís Miguel Ramos Vieira                       |
| 25. Maria João Aleixo da Silva                     |
| 26. Michel Kranendonk                              |
| 27. Nelson da Cruz Soares                          |
| 28. Ana Faria                                      |
| <b>PhD students</b>                                |
| 1. Carla Viegas                                    |
| 2. Susana Coelho                                   |
| 3. Marta Sofia Forte Dias                          |
| 4. José Chen Xu                                    |
| 5. Rui de Oliveira Pires Monteiro                  |
| 6. Filipa Marcelino Palma                          |
| 7. Moisés Alexandre dos Santos Henriques           |
| 8. Carolina Alexandra Alípio Mourata do Cabo       |
| 9. Nádia José David Vital                          |
| 10. Telma Quaresma                                 |
| 11. Sofia Alexandra Sousa Da Mata Brites Militar   |
| 12. Elsa Salgueiro                                 |
| 13. Pedro Nuno Frias Marques Gonçalves             |
| 14. Maria João Barata                              |
| 15. Rute Pires                                     |
| 16. PATRÍCIA DOMINGOS BELO                         |
| 17. SOFIA MARIA SENTIEIRO NEVES                    |
| <b>Collaborating Researchers</b>                   |
| 1. Ana Sofia Pires Amaral                          |
| 2. Carolina Cruz                                   |
| 3. MÉLANIE RAIMUNDO MAIA                           |
| 4. Paulo Jorge Nogueira                            |
| 5. Pedro Amores Silva                              |

#### **14. Data and Health Technology**

**Principal Investigator: Inês Nunes de Sousa Soares**

**Keyword(s):** Data analytics; Cyber security; Digital Health; Biomedical Imaging and Analysis

| <b>Integrated PhD holder Researchers</b> |  |
|--|--|
| 1.                                       | Inês Nunes de Sousa Soares                   |
| 2.                                       | Luis Bento                                   |
| 3.                                       | MÁRCIO CÉSAR LINO RIBEIRO NAVALHO            |
| 4.                                       | Ana Rita Londral                             |
| 5.                                       | PEDRO MANUEL VARGUES DE AGUIAR AGUIAR        |
| 6.                                       | Teresa do Carmo Sousa Magalhães Barbosa      |
| 7.                                       | CÉSAR JOÃO VICENTE DA FONSECA                |
| 8.                                       | Henrique José Monteiro Oliveira              |
| 9.                                       | Ana Maria Vieira Rebelo Correia de Barros    |
| 10.                                      | André Valério Raposo Carreiro                |
| 11.                                      | Cristina Mendes Santos                       |
| 12.                                      | Filipe Miguel Monteiro da Silva e Sousa      |
| 13.                                      | Francisco Maria Cruz Nunes                   |
| 14.                                      | Maria João Medeiros de Vasconcelos           |
| 15.                                      | Vânia Guimarães                              |
| 16.                                      | Duarte Miguel dos Santos Nunes Folgado       |
| 17.                                      | Marília Barandas                             |
| 18.                                      | Carolina Santos                              |
| 19.                                      | João Miguel Valente Cordeiro                 |
| 20.                                      | ANA RITA SOUSA PEDRO PARENTE DE ANDRADE      |
| 21.                                      | ANA MARIA FERREIRA RODRIGUES                 |
| 22.                                      | Ana Rita de Jesus Maria                      |
| 23.                                      | Helder Alexandre Correia Dores               |
| 24.                                      | Helena Canhão                                |
| 25.                                      | NUNO MANUEL BARREIROS NEUPARTH               |
| 26.                                      | Pedro de Araújo Gonçalves                    |
| 27.                                      | Pedro Miguel Carvalho Diogo Carreiro Martins |
| 28.                                      | Teresa Catarina Páscoa Madeira               |
| 29.                                      | Lúcia Domingues                              |
| 30.                                      | Fernando Augusto Bozza                       |
| 31.                                      | Hugo Silva Carvalho Pinto Marques            |
| 32.                                      | Bruno Gonçalves                              |
| 33.                                      | Orlando Fernandes                            |
| <b>PhD students</b>                      |  |
| 1.                                       | JESUS DAVID CORTES                           |
| 2.                                       | Cristiana da Palma Von Rekowski              |
| 3.                                       | Viviana Modesto Caldeira                     |
| 4.                                       | Tiago Alexandre Henrique Fonseca             |
| 5.                                       | Celso Filipe Boto Silva                      |
| 6.                                       | ANTÓNIO JOSÉ MARMELO LISTA                   |
| 7.                                       | ANA ISABEL LOUREIRO VIEGAS                   |
| 8.                                       | Joana Seringa                                |
| 9.                                       | Salomé Guedes Sequeira Pádua Azevedo         |
| 10.                                      | Maria da Graça Lopes Cunha                   |
| 11.                                      | Sílvia da Silva Rego                         |
| 12.                                      | Fatima Cano                                  |
| 13.                                      | Gonçalo Luís Vieira Borrecho                 |
| 14.                                      | Cláudia Janeiro                              |
| 15.                                      | Pedro Miguel Fernandes Lino                  |
| 16.                                      | Ana Rita Custódio Santos                     |
| 17.                                      | Daniel Brás                                  |
| 18.                                      | João Paulo de Melo Barros                    |
| 19.                                      | Helder Pino                                  |
| 20.                                      | Maria João Barata                            |
| 21.                                      | Soraia Daniela Pires Ferreira                |

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| 22. Lara Gil Gomes de Campos                                   |
| 23. Marta Sofia Moreira Marques da Fonseca Encarnação Ferreira |
| 24. Ana Rita Oliveira Henriques                                |
| 25. Catarina Pinto   |
| 26. Matilde Pacheco  |
| 27. José Miguel Martins Ribeiro de Almeida Oliveira            |
| 28. Filipa Marcelino Palma                                     |
| <b>Collaborating Researchers</b>                               |
| 1. Raul Alberto Carrilho Cordeiro                              |
| 2. Inês Simões Lopes   |
| 3. Federico Guede Fernández                                    |
| 4. José Saias  |
| 5. Luís Miguel de Mendonça Rato                                |
| 6. MÉLANIE RAIMUNDO MAIA                                       |
| 7. Miguel Barão  |
| 8. Pedro Dinis Loureiro Salgueiro                              |
| 9. Pedro Amores Silva  |
| 10. Sara Simões Dias   |
| 11. Teresa Cristina de Freitas Gonçalves                       |
| 12. Vítor Manuel Beires Pinto Nogueira                         |
| 13. Ana Santos Dornellas Cysneiros                             |
| 14. Alanny Ferreira Moutinho                                   |