

2013 REPORT ON THE STATE OF THE ART OF RARE DISEASE ACTIVITIES IN EUROPE



STATE OF THE ART OF RARE DISEASE ACTIVITIES IN PORTUGAL

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More information on the European Union Committee of Experts on Rare Diseases can be found at www.eucerd.eu.

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ACRONYMS

CAT - Committee for Advanced Therapies at EMA
CHMP - Committee for Medicinal Products for Human Use at EMA
COMP - Committee on Orphan Medicinal Products at EMA
DG - Directorate General
DG Enterprise - European Commission Directorate General Enterprise and Industry
DG Research - European Commission Directorate General Research
DG Sanco - European Commission Directorate General Health and Consumers
EC - European Commission
ECRD - European Conference on Rare Diseases
EEA - European Economic Area
EMA - European Medicines Agency
ERN - European reference network
EU - European Union
EUCERD - European Union Committee of Experts on Rare Diseases
EUROCAT - European surveillance of congenital anomalies
EUROPLAN - European Project for Rare Diseases National Plans Development
EURORDIS - European Organisation for Rare Diseases
FDA - US Food and Drug Administration
HLG - High Level Group for Health Services and Medical Care
HTA - Health Technology Assessment
IRDiRC – International Rare Diseases Research Consortium
JA - Joint Action
MA - Market Authorisation
MoH - Ministry of Health
MS - Member State
NBS - New born screening
NCA - National Competent Authorities
NHS - National Health System
PDCO - Paediatric Committee at EMA
RDTF - EC Rare Disease Task Force
WG - Working Group
WHO - World Health Organization

GENERAL INTRODUCTION

This document was produced by the Scientific Secretariat of the European Union Committee of Experts on Rare Diseases (EUCERD), through the EUCERD Joint Action: Working for Rare Diseases (N° 2011 22 01), which covers a three year period (March 2012 – February 2015).

The present report aims to provide an informative and descriptive overview of rare disease activities at European Union (EU) and Member State (MS) level in the field of rare diseases and orphan medicinal products up to the end of 2012. A range of stakeholders in each Member State/country have been consulted during the elaboration of the report, which has been validated as an accurate representation of activities at national level, to the best of their knowledge, by the Member State/country representatives of the European Union Committee of Experts on Rare Diseases. The reader, however, should bear in mind that the information provided is not exhaustive and is not an official position of the European Commission, its Agencies or national health authorities.

The report is split into six parts:

Part I: Overview of rare disease activities in Europe

Part II: Key developments in the field of rare diseases in 2012

Part III: European Commission activities in the field of rare diseases

Part IV: European Medicines Agency activities and other European activities in the field of rare diseases

Part V: Activities in EU Member States and other European countries in the field of rare diseases

Part VI: Activities at National level in each EU Member State and other European countries in the field of rare diseases

Each part contains the following description of the methodology, sources and validation process of the entire report, and concludes with a selected bibliography and list of persons having contributed to the report.

The present document contains the information from Parts II and V of the report concerning Portugal. A list of contributors to the report and selected sources are in annex of this document. For more information about the elaboration and validation procedure for the report, please refer to the general introduction of the main report.

RARE DISEASE ACTIVITIES IN PORTUGAL

Definition of a rare disease

Portugal accepts the definition of rare disease, as stated in the European Regulation on Orphan Medicinal Products, as a disease with a prevalence of no more than 5 in 10 000 inhabitants. This definition has been adopted by the National Plan for Rare Diseases.

National plan/strategy for rare diseases and related actions

In November 2008 the Portuguese Minister of Health approved the National Plan for Rare Diseases (*“Programa Nacional para as Doenças Raras”*) coordinated, since November 2011, by the Department for Quality in Health at the Directorate-General of Health (DGS).

Its main objectives are the establishment and improvement of national measures, in order to satisfy the needs of people with rare diseases and their families *vis-à-vis* medical services and care, as well as the improvement of the quality and equity of healthcare provided to those people.

Such objectives will be achieved by establishing reference centres for rare diseases, by improving the access of patients to adequate care, by strengthening knowledge and awareness on rare diseases, by promoting innovation in the treatment of rare diseases and in the accessibility to orphan medicinal products, and finally, by ensuring cooperation at national and international levels, including EU countries and those countries having Portuguese as their official language.

This Plan will cover all rare diseases, though it should articulate with other priority national plans, namely with the National Plan for Oncologic Diseases (*“Programa Nacional para as Doenças Oncológicas”*).

Besides, the National Institute of Health (INSA), through its Department of Human Genetics, coordinates the National Plan for the Control of Haemoglobinopathies.

An important step in terms of implementing the National Plan for Rare Diseases took place in 2012: a specific card for the identification of people with rare diseases (*“Cartão para a Pessoa com Doença Rara”*) was developed along this year, aiming at disclosing clinical information to medical doctors and also in emergency situations. This card, to be issued by DGS is currently being tested and will be progressively distributed along 2013.

DGS, together with the ex-Office of the High Commissioner for Health, have co-funded from 2008 to 2011, for a total amount of €1.9 million, a few projects on rare diseases, which are still nowadays being developed by several patient organisations.

Centres of expertise

Presently, there are no officially designated centres of expertise for rare diseases in Portugal. However, the identification of the so-called ‘Reference Centres’, considered as a major priority, is expected to be initiated in 2013.

Registries

According to the latest Orphanet report (*‘Disease Registries in Europe – January 2013’*) a total of 12 registries are now available in Portugal: 10 from public entities and 2 from private institutions.

Upon their own initiative, many patients are also included in international registries. A few Portuguese institutions also participate, or have participated, in European registries, such as, E-IMD, TREAT-NMD, EUROCARE CF, EUROCAT, EBAR, SCNIR, CHS, SPATAX, and EUROWILSON.

The following commissions and/or registries operate under supervision of INSA: National Commission for the Portuguese Registry of Paramyloidosis, National Commission for Lysosomal Storage Diseases, National Registry of Congenital Anomalies (RENAC) and National Newborn Screening Commission.

RENAC data are available since 1996. The most recent report covers the 2008-2010 period. Another report, updating existing information, is being prepared. Two informative newsletters were sent to the hospital services that collaborate with RENAC; to the remaining services, letters were sent renewing the invitation for their participation in RENAC. The information collected on RENAC was also integrated in the report of EUROPERISTAT system. Moreover, RENAC participated in the European Surveillance of Congenital Anomalies (EUROCAT) by sending data related to the Southern region of Portugal; it further participated in the annual meeting of that European Register.

Neonatal screening policy

The National Programme for Early Diagnosis ("*Programa Nacional de Diagnóstico Precoce*") started in 1979 at the *former* Institute of Medical Genetics and, initially, it only included the screening of phenylketonuria. *INSA* is nowadays responsible, at both organizational and laboratorial levels, for the national newborn screening programme, which covers *ca.* 100 % of all children born in Portugal.

Currently, the following 26 diseases are screened: Congenital Hypothyroidism, Phenylketonuria (PKU)/ Hiperphenylalaninemia, Tyrosinemia Type I, Tyrosinemia Type II/ III, Maple Syrup Urine Disease (MSUD), Citrullinemia Type I, Argininosuccinic Aciduria, Argininemia, Classic Homocystinuria, Methionine Adenosyltransferase Deficiency (MAT deficiency), Propionic Aciduria (PA), Methylmalonic Aciduria type mut- (MMA, Mut-), Isovaleric Aciduria (IVA), 3-methylcrotonyl-CoA Carboxylase Deficiency (3-MCCD), Glutaric Aciduria Type I (GA I), Methylmalonic Aciduria type Cbl C/D (MMA, Cbl C/D), 3-hydroxy-3-methylglutaric Aciduria (3-HMG), Malonic Aciduria, Medium Chain AcylCoA Dehydrogenase Deficiency (MCAD), Very Long Chain AcylCoA Dehydrogenase Deficiency (VLCAD), Long Chain 3-hydroxyacyl-CoA Dehydrogenase Deficiency (LCHAD)/ Trifunctional Protein Deficiency (TFP), Short Chain AcylCoA Dehydrogenase Deficiency (SCHAD), Primary Carnitine Deficiency (CUD), Carnitine Palmitoyl Transferase I Deficiency (CPT I), Carnitine Palmitoyl Transferase II Deficiency (CPT II/ CACT), Glutaric Aciduria Type II (MADD).

Genetic testing

Genetic testing is available for many rare disorders, though, as in other countries, there is a significant flow of genetic testing over the borders. Diagnostic tests are registered as available in Portugal for 393 genes and an estimated 463 diseases, in the Orphanet database¹.

Genetic tests are carried out in genetic laboratories within the National Health System (NHS), as it is the case of *INSA*² (considered as the national reference laboratory), as well as in laboratories located or associated with genetic services in public hospitals, and also in private laboratories; besides, a certain number of labs offer genetic testing at universities and research institutions.

Whenever a specific test is not available in Portugal, there is a formal procedure to perform it abroad.

In 2012, the number of clinical cases sent abroad for referral amounted to 354, especially for molecular study and laboratorial genetic testing.

Genetic testing in Portugal is regulated mainly by Law no 12/2005, of 26 January 2005. This law defines, among others, the concept of health information and genetic information, the circulation of information and the intervention on human genome within the health system, as well as it establishes the procedure to collect and preserve biological products, for purposes of genetic testing or of research.

As a member of OECD, Portugal is subject to the OECD Best Practice Guidelines for Molecular Genetic Testing; Portugal also signed and ratified the Oviedo Convention.

National alliances of patient organisations and patient representation

Portugal has two alliances on rare diseases: *FEDRA* – Portuguese Federation of Rare Diseases ("*Federação Portuguesa de Doenças Raras*")³ and *APADR* – Portuguese Alliance of Rare Diseases Associations ("*Aliança Portuguesa de Associações de Doenças Raras*").

APADR was officially established in 2009, and since then, has developed several actions and activities with the aim of improving Portuguese health policy in the field of rare diseases, and also raising awareness to this problem.

During 2012, *APADR* held a conference entitled "*Rare but Strong Together*", in collaboration with ORPHANET-Portugal, which took place on Rare Disease Day. Also for this particular day, *APADR* made a special spot, broadcasted by the radio and TV channels. *APADR* attended the European Conference on Rare Diseases and Orphan Products - 2012 held in Brussels, as well as the General Assembly of Eurordis.

APPDH (the Haemoglobinopathies Association and a member of *APADR*) organized a health fair in April and from May to December a national *roadshow* named '*In-loco Haemoglobinopathies*'. This Association also published a brochure '*Globi's Friends*', with life stories of patients and their relatives.

In 2012, *RARÍSSIMAS* (the largest Association within *FEDRA*) launched a series of events and meetings in order to raise awareness on rare diseases and to achieve several goals. Among these initiatives, they published in February "*Vidas Raras*" (Rare Lives), a book telling stories about patients and their families. Moreover, they also signed a protocol aiming to find a place to install the "*RarÍSSIMO Centre*" in Pico Island,

¹ Information extracted from the Orphanet database (December 2012).

² <http://www.insa.pt/sites/INSA/Portugues/AreasCientificas/Genetica/Paginas/LaboratorioDeReferencia.aspx>

³ <http://www.fedra.pt>

Azores. In November they also organized in Oporto the first Meeting on 'Angelman Syndrome' with Portuguese and international specialists. *RARÍSSIMAS* continues to publish its magazine 'Rare Pages', disclosing important information on rare diseases to the whole population.

Sources of information on rare diseases and national help lines

Orphanet activity in Portugal

The national team of Orphanet has kept available and updated in Portuguese all menus from the international site⁴, all the diseases names, the emergency guides and summaries of diseases (validated by experts in each area).

This is an important resource also for all countries of official Portuguese language and the Portuguese communities spread throughout the world (about 240 million Portuguese speaking persons). The team also maintained and kept updated the Orphanet-Portugal website page⁵, and a Facebook page⁶, which have included updated news about initiatives on rare diseases in the country and in Brazil.

By the end of 2012, nearly 400 abstracts of rare disease and 18 emergency guidelines had been translated and validated into Portuguese and entered in the international database; about 150 new abstracts were also translated and validated, waiting to be inserted.

During 2012, Orphanet-Portugal continued to collect and validate and significantly increased the information available in the country on national resources and activities related to rare diseases and orphan drugs. These included 133 specialised centres, 114 diagnostic laboratories, 705 diagnostic tests, 157 research projects, 21 clinical trials, 73 patient organisations and 21 patient registries and databases, by December 2012; the list of the orphan drugs available in the country (currently 51, in a total of 88 different presentations and/or dosages) is regularly updated by INFARMED and provided in our national website, together with the annual uptake for each one.

The Orphanet-Portugal team also contributed to the development (in English) and subsequent translation and validation into Portuguese of a leaflet on "Genetic Testing Related Health", produced by the Council of Europe and prepared by EuroGentest (a network of excellence funded by the European Commission) and the PPPC (Public and Professional Policy Committee) of the ESHG (European Society of Human Genetics). This brochure (in Portuguese) is to be released during the Rare Disease Day 2013.

The national scientific advisory board of Orphanet-Portugal proved to be a valuable resource, providing important information as well as the validation of some data whenever requested; it met once, before the DNA Day event with Ségolène Aymé, leader of the Joint Action Orphanet Europe.

In addition, as in previous years, the national team has been committed to the diffusion of the Orphanet portal and services to professionals involved in rare diseases, as well as to patients, families and the general public. This was done both through the organization of specific events, and the participation in several scientific meetings and courses with oral or poster communications and lectures. In 2012, 11 presentations about Orphanet were made at such meetings, and 2 conferences were organised (together with APADR) by Orphanet-Portugal (the Rare Disease Day 2012 and a special DNA Day Conference).

All this information is intended to help improving and shortening the time before a diagnosis is obtained, and specialised care and treatment of patients with rare diseases is reached, as well as planning and improving the care for persons with rare diseases in the country.

Official information centre for rare diseases

Orphanet is mentioned in the National Plan for Rare Diseases as the main source of information regarding activities related to rare diseases in Portugal.

Help line

The patient organisation *RARÍSSIMAS*, with funding from *DGS*, implemented in 2009 a dedicated call centre, the so-called 'Rare Line' ("*Linha Rara*")⁷, that throughout the year of 2012 provided relevant information to 2 137 requests.

Several other patient associations, as the Portuguese Haemophilia Association, also give advice and support to patients and their families, either online, by email or by phone.

⁴ <http://www.orpha.net/consor/cgi-bin/index.php?lng=PT>

⁵ <http://www.orpha.net/national/PT-PT>

⁶ <https://www.facebook.com/Orphanet.PT>

⁷ www.linharara.pt

Other sources of information on rare diseases

The Orphanet-Portugal team also deals with many requests for information coming from Portuguese speaking countries.

Good practice guidelines

DGS, in collaboration with the Portuguese Medical Association (“*Ordem dos Médicos*”) has been developing a number of clinical guidelines; among these, and in the specific area of rare diseases, three guidelines were issued in 2012, which refer, specifically, to the diagnosis and follow-up of Cystic Fibrosis and Pulmonary Hypertension.

Furthermore, the national coordinator of Orphanet-Portugal has been a participant and member of the steering group of *EuroGentest* (and *EuroGentest2*), a EU-funded Network of Excellence, which has developed guidelines and supports the certification and/or accreditation of genetic laboratories, and has taken important steps towards organising and harmonising external quality assurance schemes in genetic testing. He has also closely collaborated, leading several work groups, with EHDN and International Huntington Association for the review of the predictive guidelines and the development of PGD guidelines for Huntington disease. He also participated in the OECD expert group that defined the OECD Guidelines for Quality Assurance in Molecular Genetic Testing⁸, led the process of defining the EMQN BP Guidelines for the Molecular Genetic Testing in the SCAs (dominant ataxias)⁹, and collaborated for the EMQN BP Guidelines for Molecular Genetic Testing of Huntington Disease (still being finalised).

Training and education

There is no formal programme in this area, but some medicine faculties have lectures on rare diseases and information resources (such as Orphanet), and much work is done in high-schools and by patient organisations and health services.

A Professional Master’s Course in Genetic Counselling was initiated at the University of Porto. This two-year post-graduation course is an innovative initiative in Portugal for professionals with diverse clinical backgrounds, including clinical psychologists, nurses and others. This full-time programme encompasses bioethics, clinical and genetic epidemiology, genetic counselling principles and techniques, clinical psychology, research methodologies and clinical rotations, as well as one-year training in a recognised medical genetics service and a research project, with special emphasis on rare diseases.

Some patient associations also organise one-day receptions for medical students, so that they are made aware of rare diseases and rare disease patients.

National rare disease events in 2012

The Portuguese Alliance *APADR*, in collaboration with Orphanet-Portugal, organised a conference to mark Rare Disease Day in 2012. Many patients, relatives, patient associations’ representatives, industry representatives, policy makers and health authorities, health professionals and researchers, including several members of the Scientific Advisory Board of Orphanet-Portugal were present at this event. The conference included presentations of Orphanet tools and activities.

On 20 April 2012, the Orphanet-Portugal team organised a national meeting on rare diseases and orphan medicinal products. This event was part of the DNA Day 2012 and was preceded by the 1st meeting of the National Advisory Board of the Orphanet-Portugal. The topics of the main meeting included: the current status of the Portuguese Rare Disease Plan, the future Reference Centres and Networks for Rare Diseases and Cards for Persons with a Rare Disease, as well as the current status of legislation and regulation of genetic testing and its quality, including the licencing, certification and accreditation of genetic laboratories.

Other events included: Lysosomal Disorders Day conference (28 May 2012), International Day of Ataxias event (22 September 2012), Solidarity Dinner for the International Day of Amyotrophic Lateral Sclerosis (21 June 2012), events for the European Week for Hemochromatosis (7-10 June 2012), events for the International Day of Osteogenesis Imperfecta (6 May 2012), 3rd Symposium of the Study Group of Rare Diseases of the Portuguese Society of Internal Medicine (12-13 October 2012), Annual Meeting of the Portuguese Society of Human Genetics (22-24 November 2012), Symposium on Rare Diseases of the Metabolism (Lisbon, 14 December 2012).

⁸ www.oecd.org/dataoecd/43/6/38839788.pdf

⁹ www.eurogentest.org/uploads/1283847353000/SCABestPracticeGuidelines-WebsiteVersion.pdf

Hosted rare disease events in 2012

Amongst the rare disease related events announced in *Orphanews Europe* in 2012 was: the First International Primary Immunodeficiencies Congress (IPIC), (Estoril, 7-8 November 2013).

Research activities and E-Rare partnership

National research activities

The Foundation for Science and Technology ("*Fundação para a Ciência e Tecnologia*" - *FCT*) runs several programmes to fund research on rare diseases. In 2012, *FCT* funded scientific projects in a total amount of € 583,000.

Participation in European research projects

Portugal participates, or has participated, in the following European rare disease research projects: CLINIGENE, EPOKS, Euro-WILSON, EUR-Ush, PPPT- MJD, SPATAX, EURAMY, EURO CARE CF, EuroGentest-2, EVI-GENORET, INTREALL, LEISHMED, MMR-RELATED CANCER, NEUPROCF, PEROXISOMES, POLYALA, RHORCOD, SAFE, PHGEN, RDCONNECT, STRONG, RIBERMOV and SIOPEN-R-NET.

In 2012, *INSA* participated in ten Research & Development projects on rare diseases, namely the haemoglobinopathies, lysosomal storage diseases, muscular dystrophies, cis-irruption (genomic) disorders and genetic dyslipidaemia. *INSA* also points out its participation in the EUCERD Joint Action, and as member of the ERA-Net on Rare Diseases (E-Rare-2) project.

E-Rare

Portugal, represented by *FCT* and *DGS*, joined the E-Rare-2 Consortium in 2009. However, in December 2012, *DGS* was replaced by *INSA* in this Consortium. During 2012 *FCT* has funded research projects in the amount of €342,000. Portugal joined the 4th Joint Transnational Call in 2012 with Portuguese teams participating in 2 out of the 11 research projects.

IRDiRC

Portuguese funding agencies have not yet committed funding to the *IRDiRC*, however the through the E-Rare Group of Funder, Portugal will be represented at the *IRDiRC* as of the end of 2012.

Orphan medicinal products

In Portugal, regulation of orphan medicinal products is the responsibility of *INFARMED*. A partnership has been established in 2010 between *INFARMED* and ORPHANET-Portugal for a monthly update on all orphan medicinal products, already approved and available in the country.

Following legislation establishing the access of patients to therapies involving diseases with enzymatic deficit, *INSA* coordinates and further authorizes these pharmacological treatments. In 2012, the delivery of enzyme replacement therapy amounted to € 47.5 million. A list of enzymatic diseases, which benefit from free of charge treatment in public hospitals, is also available.

Orphan medicinal product committee

There is no such Committee in Portugal.

Orphan medicinal product incentives

Presently *INFARMED* is not aware of the existence of any specific incentives.

Orphan medicinal product market availability situation

A list of all orphan medicinal products available in Portugal is published at the ORPHANET-Portugal entry site. This data is provided and regularly updated by *INFARMED*.¹⁰

Orphan medicinal product pricing policy

Orphan medicinal product pricing policy falls under the responsibility of the Ministry of Health.

Orphan medicinal product reimbursement policy

There are no specific provisions in place for the reimbursement of orphan medicinal products. All Portuguese citizens are covered by the National Health Service. The investment of the NHS in orphan medicinal products

¹⁰<http://www.orpha.net/national/PT-PT/index/lista-de-medicamentos-órfãos-disponíveis-em-portugal/>

between January and November 2012 exceeded € 63 million, which represents 6.5 % of the total consumption of medicines in hospitals. It should be noted that there was an increase of 16.8 % in this group of medicinal products, as compared to the same period of 2011.¹¹

However, there are special programmes in place to facilitate access to growth hormone therapy and enzymatic therapy.

Other initiatives to improve access to orphan medicinal products

A Special Use Authorisation (SUA) procedure is in place to provide access to certain orphan medicinal products. If an orphan medicinal product is not marketed in Portugal, the treating hospital can request a special authorisation from *INFARMED*; if the use is approved, the hospital is directly supplied by the manufacturer and there is no co-payment from the patient¹².

Other therapies for rare diseases

There are no other initiatives for improving access to other therapies for rare diseases.

Orphan devices

Under the Directive for Medical Devices, there is no specific regulation for this kind of devices. Instead, there is the possibility of issuing an exceptional authorisation, for the specific utilisation of certain devices, for which the conformity assessment procedure, so as to obtain CE marking, has not yet been completed.

In addition, regarding diagnostic tests for rare diseases, these are usually considered as ‘in-house tests’ because they are manufactured and used only within the same health institution and on the premises of their manufacture, or used on premises in the immediate vicinity, without having been transferred to another legal entity.

Specialised social services

Respite care services exist in the public, private and social sectors, and patients must pay for some services. Other respite facilities are run by patient organisations and some projects have been established with public support.

In a general way, all patients with rare disease, and depending on their level of functional ability, have access to the same benefits, as any other citizen in the same situation of dependency.

RARISSIMAS has two multidisciplinary centres, which provide clinical care and therapies to patients and families with rare diseases. There are some therapeutic recreational initiatives organised by hospitals with the support of public or private organisations, which are paid through public and private funding; many programmes are organised by several patient organisations, such as the Portuguese Association for Paramyloidosis. There are some projects to help the integration of patients in daily life, and this offer will hopefully improve under the National Plan for Rare Diseases. Some other patient associations organise respite camps.

DEVELOPMENT OF RARE DISEASE ACTIVITIES IN 2012 IN PORTUGAL

National plan/strategy for rare diseases and related actions

An important step in terms of implementing the National Plan for Rare Diseases took place in 2012: a specific card for the identification of people with rare diseases (“*Cartão para a Pessoa com Doença Rara*”) was developed along this year, aiming at disclosing clinical information to medical doctors and also in emergency situations. This card, to be issued by *DGS* is currently being tested and will be progressively distributed along 2013.

¹¹ http://www.INFARMED.pt/portal/page/portal/INFARMED/MONITORIZACAO_DO_MERCADO/OBSERVATORIO/ANALISE_MENSAL_MERCA_DO/ANALISE_MERCADO_MEDICAMENTOS_CHNM/2012/Rel_ConsumoMedicamentos%20em%20Meio%20Hospitalar_201211.pdf

¹² EMINET – Initial investigation to access the feasibility of a coordinated system to access orphan medicines, C. Habl, F. Bachner (2011), p 57

Genetic testing

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National alliances of patient organisations and patient representation

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Help line

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Good practice guidelines

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¹³ www.linharara.pt

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Research activities and E-Rare partnership

National research activities

The Foundation for Science and Technology ("*Fundação para a Ciência e Tecnologia*" - *FCT*) runs several programmes to fund research on rare diseases. In 2012, *FCT* funded scientific projects in a total amount of € 583,000.

Participation in European research projects

In 2012, *INSA* participated in ten Research & Development projects on rare diseases, namely the haemoglobinopathies, lysosomal storage diseases, muscular dystrophies, cis-irruption (genomic) disorders and genetic dyslipidaemia. *INSA* also points out its participation in the EUCERD Joint Action, and as member of the ERA-Net on Rare Diseases (E-Rare-2) project.

E-Rare

During 2012 *FCT* has funded research projects in the amount of €342,000. Portugal joined the 4th Joint Transnational Call in 2012 with Portuguese teams participating in 2 out of the 11 research projects.

IRDIRC

Portuguese funding agencies have not yet committed funding to the *IRDIRC*, however the *FCT* through the E-Rare Group of Funder, Portugal will be represented at the *IRDIRC* as of the end of 2012.

Orphan medicinal products

In 2012, the delivery of enzyme replacement therapy amounted to € 47.5 million. A list of enzymatic diseases, which benefit from free of charge treatment in public hospitals, is also available.

LIST OF CONTRIBUTIONS¹⁴

Contributions in 2010

Jorge Sequeiros, Jorge Pinto Basto and Sandra Peixoto (*Orphanet Portugal, Institute for Molecular and Cell Biology, University of Porto*)

Luis Nunes (*Serviço Genética Médica, Hospital Dona Estefânia; President, National Plan for Rare Diseases*)

Contributions in 2011

Jorge Sequeiros, Jorge Pinto Basto and Sandra Peixoto (*Orphanet Portugal, Institute for Molecular and Cell Biology, University of Porto*)

Luis Nunes (*Serviço Genética Médica, Hospital Dona Estefânia; President, National Plan for Rare Diseases*)

Heloisa Santos (*Adviser for Medical Genetics to the Direcção-Geral da Saúde, member of the National Plan for Rare Diseases and head of the committee for the implementation of "Reference centres"*)

Marta Jacinto (*Aliança Portuguesa de Associações das Doenças Raras*)

Paula Costa (*FEDRA*)

Ana Corrêa Nunes (*INFARMED, Portuguese representative at COMP*)

Contributions in 2012

Jorge Sequeiros (*Orphanet Portugal, Institute for Molecular and Cell Biology, University of Porto*)

Fernando Guerra (*DGS - Direcção-Geral da Saúde, Ministry of Health*)

Óscar Carvalho (*INFARMED, Ministry of Health*)

Miguel Sousa (*ACSS – Administração Central Sistema de Saúde, Ministry of Health*)

Anabela Isidro (*FCT - Fundação Ciência e Tecnologia*)

Marta Jacinto (*APADR - Aliança Portuguesa de Associações de Doenças Raras*)

Paula Costa (*FEDRA - Federação Portuguesa de Doenças Raras & RARISSIMAS - Associação Nacional de Deficiências Mentais e Raras*)

Contributions in 2013

Anabela Coelho (*DGS, Directorate General of Health – Ministry of Health*)

Fernando Guerra (*DGS, Directorate General of Health – Ministry of Health*)

Miguel Sousa (*ACSS, Central Administration of the Health System – Ministry of Health*)

Glória Isidro (*INSA, National Institute of Health Doutor Ricardo Jorge – Ministry of Health*)

Dinah Duarte (*INFARMED, National Authority of Medicines and Health Products – Ministry of Health*)

Anabela Isidro (*FCT, Science and Technology Foundation – Ministry of Education and Science*)

Jorge Sequeiros (*ORPHANET-Portugal / IBMC, Institute for Molecular and Cell Biology, University of Porto*)

Marta Jacinto (*APADR, Portuguese Alliance of Rare Diseases Associations*)

Paula Costa (*FEDRA, Portuguese Federation of Rare Diseases / RARISSIMAS, National Association of Mental Disorders and Rare diseases*)

Validated by:

José Alexandre Diniz (*EUCERD Representative for Portugal, DGS, Ministry of Health*)

SELECTED BIBLIOGRAPHY AND SOURCES¹⁵

- *National Plan for Rare Diseases*
http://ec.europa.eu/health/ph_threats/non_com/docs/portugal.pdf
- INFARMED
<http://www.INFARMED.pt/>
- ACSS

¹⁴ The contributors and validators of the report have contributed information which is accurate to the best of their knowledge. However, readers should take note that the contents of this report are illustrative and not exhaustive.

¹⁵ All websites and documents were last accessed in May 2013.

- <http://www.acss.min-saude.pt/>
- FCT
<http://www.fct.pt/>
- ORPHANET Portugal
<http://www.orpha.net/national/PT-PT/index/p%C3%A1gina-de-in%C3%ADcio/>
- FEDRA - Portuguese Rare Disease Alliance
<http://www.fedra.pt/>
- APADR - Alianca Portuguesa de Associações das Doenças Raras
<http://aliancadoencasraras.org>
- RARÍSSIMAS
<http://www.rarissimas.pt/> and <http://www.linharara.pt/>