

Orphanet Final Scientific Report 2003



Final report of a project supported by the Community Rare Diseases Programme 2000-2002





Orphanet

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ORPHANET: Final scientific report

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Final scientific report 2003

Goal of the EC funded project

ORPHANET is a database of rare diseases and orphan drugs for the general public. It aims to improve diagnosis, management and treatment of rare diseases. It contains an on-line encyclopaedia written by European experts and a directory of services for patients and professionals. This directory includes information about specialized outpatient clinics, diagnostic laboratories and support groups in Europe. It is available at the following address: http://www.orpha.net

The database is accessible in 5 languages: English, French, German, Italian and Spanish.

Orphanet was established in 1997 by the French ministry of health and the INSERM (French national institute of the Programme of Community action on rare diseases (1999 - 2003), in partnership with other national bodies: the AFM (French muscular dystrophy association), and the CNAMTS (national social security system). Since December 2000, it is also funded by the European Commission (DG Public Health) in the Programme of Community action on rare diseases (1999 - 2003).

During year 2003, the project was to be taken further to collect, validate and enter in the database, information on services from 7 countries (Austria, Belgium, France, Germany, Italy, Spain and Switzerland) and to extend the content of the database to information to one more country (Portugal) using the database structure and interface already developed by Orphanet-France. The project was also to expand the number of review articles on rare diseases in the Orphanet encyclopaedia.

The achievements are presented in two parts:

- 1- the development of the on-line Encyclopaedia on rare diseases
- 2- the extension of the existing directory of services to 8 European countries.

1- The on-line Encyclopaedia

1.1 Editorial process

The Orphanet encyclopaedia is under the responsibility of an editorial board of 83 European experts. All the editing process takes place in Paris under the responsibility of 3 technical scientific editors whose task consists of:

- contacting the editorial board members to ask them to nominate authors
- approaching the nominated authors
- proof-reading and correcting the manuscripts in agreement with the Orphanet guidelines
- sending the manuscripts to editors for peer-reviewing
- making the final changes according to the editor's requests
- type-setting the final drafts and putting them online
- managing the updating process

All the manuscripts are written in English. The summaries are translated into national languages if resources are available (outside this contract). The translation into French and Italian is now systematically done.

All the texts are updated once a year.

The list of editors by specialty and by country is given in Annex 1. They nominate potential authors who are asked to provide a review article in English if the knowledge about the disease is important enough to justify such a review. They are invited to write only a summary (200 words) if the available information is very limited.

1.2 Content of the Encyclopaedia

The content of the ORPHANET encyclopaedia as of 30 November, 2003 compared to 30 November 2002 is:

Number of diseases:	3,695	+ 148
Number of summaries in French	1,164	+ 174
Number of summaries in English	1,036	+ 203
Number of summaries in Italian	790	+790
Number of summaries in Spanish	115	+ 115
Number of long texts in French and English	537	+ 92

2- The directory of services

The directory of services includes information on resources supposed to improve the management of rare diseases.

2.1 Management of the database

The database is hosted by the Orphanet Sun server located in Evry, suburb of Paris. The database management system is Sybase. There is a team of 2 computer scientists attached to it.

The database can be accessed by each partner from its working place. The rights are well defined and each partner can only input on data from its country.

The overall data collection process is under the responsibility of a French information scientist who is in charge of the training of all partners and of the internal quality control. The collection of data is done by information scientists at the country level.

Each national partner is responsible for the following tasks: collecting, validating and entering in the database information on:

- clinical laboratories performing diagnostic tests for rare diseases
- patients' organisations dedicated to rare diseases
- specialised clinics dedicated to rare diseases

Each partner has been provided with the computer system tools to access and update the database from their own premises. These tools have been developed by the central team and tested to be fully operational by the end of the first contract. A new version has been released in March 2003.

For the database of services, the tasks to be achieved were:

- For the central team in Paris:
 - to train the new partner (Portugal)
 - to support the first partners in their activity of collecting, validating and formating their data (Austria, Belgium, Italia, Switzerland, Germany and Spain)
 - to produce a new version of the database management tool, taking into account all the difficulties observed during the feasibility study.
- for all partners, to identify sources of information and start collecting data
- for all partners, to establish a national scientific advisory committee, in charge of validating their data before they are released in the database
- for Austria, Belgium, Germany, Italy, Switzerland and Spain, to collect data on services and enter them into the database
- for Portugal, to identify sources of information and send out questionnaires to collect data, and to translate the website in Portuguese.

2.2 Country specific activities

2.2.1 Italy

Orphanet-Italia goal for the year 2003 was to extend the content of the Italian database of services and to proceed with the translation of the *on-line* encyclopedia. The first two years (December 00 - November 01 and December 01 - November 02) were start up years where

the Italian team defined all the problems for data collection and management. The team was trained to use the French methodology for identifying sources of information, collecting and inputting data, through 3 visits to Paris, regular e-mails and phone calls. The methodology was then adapted to fit the Italian framework, in particular questionnaires for data collection were adapted to the needs of genetic counselling clinics, specialised counselling clinics and cytogenetic laboratories.

In the year 2003, Orphanet-Italia activity focused on the translation, from English into Italian, of summaries published in the *on-line* encyclopedia; the translation has been performed by Orphanet-Italia team not using any extra-funding. But this task has been considerably difficult and time-consuming, particularly because all summaries from the English encyclopedia, published before 2001 had been revised, updated or even replaced by summaries written by new authors. Therefore all texts translated in Italian, up to February 2003, needed to be checked or translated again when the author had changed. This meant doing the same work twice. This point has been discussed many times with the French team, highlighting Orphanet-Italia difficulty about the process of summaries updating.

The database of services has been implemented and the number of data concerning diagnostic laboratories, research projects, genetic counselling clinics and specialised counselling clinics has considerably raised, compared to the 2 previous years. Diagnostic laboratories have been identified using sources of information such as the Italian Society of Human Genetics, professional scientific societies, patient organisations and experts from the National Scientific Committee. Research projects have been identified through Telethon and the Ministry of Health. Specialised clinics have been identified thanks to a list of clinics and expert provided by patient organisations and Scientific Committee members. The major difficulty encountered, after data collection, consisted of contacting a second time the responsible persons to identify the list of diseases, which applied to their diagnostic or research activity.

In October 2003 the process of database updating started off, following the procedure established by the central team. All professionals cited in the Italian database (laboratories directors, clinicians, patient organisations presidents) have been contacted by e-mails and phone calls, they have been asked to check the accuracy and relevance of their data on the web. The only difficulty encountered was the reluctance of some laboratory directors to respond in spite of many reminders. The process of updating is still ongoing and it is expected to be over in the first months of year 2004, in order to proceed with Orphanet-Italia book issue, scheduled for the end of 2004. Information already updated has been submitted to the attention of each member of the National Scientific Committee according to his specialty for validation.

Due to the vast amount of work, complementary funding at governmental level has been obtained in order to expand Orphanet-Italia team.

2.2.2 Spain

The Spanish team has worked to expand the database with laboratories, diagnostic centers, specialised clinics, research projects and clinical trials in the area of clinical genetics with 2 or 3 mailings. The response rate has been around 50%. All these activities have been supervised by the scientific committee, the corresponding information has been edited and put online. The team has also sent the forms to all Pediatric Neurology divisions, Endocrinology (adult and child) divisions and Immunology. They have also contacted all the research networks with any connection with rare disorders (Redes Temáticas de Investigación del Instituto de Salud Carlos III) and have mailed forms to 154 researchers with active research projects publicly funded. They have contacted, with the collaboration of the Agencia Española del Medicamento, over 300 people dealing with clinical trials, and they have sent forms to 279

patient support groups. They are in the process of collecting all this data. Therefore these data must next be supervised or edited before being available online.

2.2.3 Germany

Orphanet Germany has formed partnerships with the main patient support group umbrella organisation "kindernetzwerk" and the German Society of Human Genetics which are the most important single expert organisation that deals with rare diseases. Orphanet Germany is playing an active role in activities organized by the German Federal Ministry of Research and Education in its network on rare diseases.

The questionnaires for diagnostic labs with foci on biochemistry, haematology and cytogenetics were adapted for the different fields and the application forms are now available on the German homepage <u>www.orphanet.de</u>. The remaining forms required for data collection of networks, support groups, research projects etc. also have been placed on the webpage in order to simplify the procedure of registration.

In the beginning of 2003, introduction of the collected data for the diagnostic laboratories was carried out.

From 600 support groups, the addresses of which had been made available by the major patient support group "Kindernetzwerk", 250 have been selected for Orphanet. These groups have been contacted through letters, phone calls, and questionnaires. 116 agreed to register and all of them have been entered into the database.

The central public funding organisation in Germany, The Deutsche Forschungsgemeinschaft (DFG - German Research Foundation) supports fundamental research. With the help of their online information system "Gepris", they identified about 400 research projects relevant to the Orphanet-Database. They contacted all of them by the end of 2003.

Within the framework of health research, the German Federal Ministry of Education and Research supports several Networks of Experts focusing on (rare) diseases. The German team contacted all relevant organisations and is waiting for a feedback.

As Orphanet is becoming well known in Germany, the number of personal requests for information is sharply increasing.

2.2.4 Belgium

Further data on the clinical and technical diagnostic activities of the 8 centers of Anthropogenetics have been completed and refined.

A working group of 4 molecular biologists, supervised by the High Council of Anthropogenetics, at the Federal Ministry of Health was established to compartmentalize the molecular genetic tests performed at the different centers and to decide as to the complementarity of the different centers. The aim of the working group is to select centers performing specific, complex, rare molecular tests (*e.g.* CDG syndrome in Leuven, NF1 in Ghent, MecP2 in 2 centers...)

The support groups are coordinated by the "Trefpunt Zelfhulp" in the Flemish part and by Association Self-Help in the French speaking community. The total number of self-help groups they subscribed is: 109 Flemish, 64 French and 10 German support groups.

Official contacts have been made to the Academy of Medicine and the National and regional boards of the Medical Specialists. They forwarded the letter of request to the different medical sub specialities.

A difficult issue is the definition of the Centers of Reference in different, mostly non-genetic conditions.

Therefore, the National Health Insurance was also contacted to provide the list of specific reference centers (e.g. for neuromuscular disease, diabetes) that have been officially created.

2.2.5 Portugal

The first task of the Portuguese team was to translate of the the database files to Portuguese. They also adapted the questionnaires to the Portuguse framework and nominated their scientific advisory board. The data collection was performed by contacting (personal and by mail) public hospitals, patients support groups and research and diagnostic laboratories, using as sources: the Portuguese Society of Human Genetics, the National Medical board, specialized scientific societies, Porto city hall social action guide, Portuguese association of pharmaceutical industries (APIFARMA), INFARMED (pharmaceutical regulatory authority), printed pharmaceutical information, leaflets available at the institute, and personal contacts. The normal procedures for the registration of this data collection were undertaken at the National Commission for Data Protection. A meeting was held at the Directorate-General of Health to introduce Orphanet-Portugal and discuss official support.

2.2.6 Switzerland

The focus of the activity over the past year was to obtain data on projects and services concerning rare diseases, which are provided by non-geneticists. This required close collaboration with members of the Scientific Advisory Board, which gained several members since last year. Prior to this year, members were contacted by mailings or phone calls. In May 2003 the first Committee meeting was held with a presentation on Orphanet structure and goals and a general discussion about the best methods for collecting data and collaborating. In August 2003, individual planning sessions were held with each member, either in Geneva or during trips to Lausanne and Bern. These meetings all intended to define the steps needed to collect data for each specialty. In some cases, the advisor proposed an initial mailing to all members of his or her specialty, soliciting them to provide the name of diagnostic services and associations, whereas in other cases it was felt that specialty services were available only in university centers, so that mailings should first go to heads of departments. Although a good deal of data was brought in in through these initiatives, work remains to be done, particularly in the non-French speaking parts of Switzerland, as specialists there tended to have little or no prior information on Orphanet. Several societies have indicated that they would publish an article about Orphanet. Information is provided through a Swiss Orphanet home page (www.orpha-net.ch) which has been on line since October 2002 hosted by Health On the Net (HON). The Swiss web pages contain all the information for the Swiss territory (at the moment only in French) with direct connection to the French database when a request is submitted to consult the Orphanet database. The content and format of the webpage was completely revamped in the fall of 2003.

2.2.7 France

The French team is in charge of the management of the Encyclopaedia (4 full time) and the supervision of all other national teams, including the quality control. This represents a full time activity for an information manager. The team also developed several new tools in 2003: a tool to put in touch patients with the same disorder through the Internet (MILOR project), a tool to enable patients to apply for participation in clinical trials (ECLOR project). The French version is operational. The international version is in development through a contract with DG Research (OrphanPlatform contract). The team also started producing a Newsletter, called OrphaNews which is sent to all requesters in French. We have currently 3,500 subscribers.

2.3 National Scientific Committees

The data about services are collected under the responsibility of national scientific committees.

The composition of those which are already fully operational is given in Annex 2.

2.4 Current content of the database of services

The current version of the database includes information on specialized clinics, clinical labs, research projects and patients organization. The content of the database, as on the 30th of November 2003 was the following:

- Number of clinical laboratories	601
- Number of diseases with a diagnostic test	
- Number of research laboratories	
- Number of disease with a research programme	
- Number of types of clinics	
- Number of highly specialised clinics	
- Number of support groups	
- Number of diseases linked to support groups	
- Number of professionals cited	
- Number of diseases linked to a website	
- Number of distinct Url	
- Number of orphan drugs	
Including:	
- 29 drugs with a European marketing authorisation	

- 87 drugs with an American marketing authorisation
- 19 drugs with a Japonese marketing authorisation
- 29 drugs with an Australian marketing authorisation
- Number of diseases linked to an orphan drug 206

2.5 The quality charter

During a meeting held in Paris on 5-6 February 2002, all the partners have agreed on a quality charter to be followed by all partners (see Annex 3)

2.6 Local teams: composition and training

2.6.1 French team

The French team is composed of 12 professionals:

Project Director: Ségolène Aymé who is a medical geneticist, director of research at the INSERM

Information scientists: Mounia El Yamani, Caroline Hagnéré, Anne-Sophie LeGall, David Oziel, Nathalie Piroux, Aurélie Bedin, Fabienne de Véricourt ;

Computer scientists: Bruno Urbero, Nguyen Manh Hung ;

Assistant: Valérie Fonteny ;

Secretary: Sandrine Gromat.

2.6.2 Italian team

The team includes 7 professionals: Project Director: Pr Bruno Dallapiccola; Medical geneticist and project supervisor: Dr Rita Mingarelli; Medical geneticist, in charge of research projects and outpatient clinics: Dr Anna Sarkozy;

Medical geneticist, in charge of clinical laboratories and patients organisations: Dr Daniela Zuccarello and Sonia Festa;

Database coordinator, in charge of translation and data entry: Dr Roberta Ruotolo; Webmaster : Arnaldo Morena.

2.6.3 Belgian team

The Belgian team is composed of three professionals: Pr Jean-Pierre Fryns, country coordinator, who is a medical geneticist Dr Lukusa Tshilobo and Mrs Veerle Govers are in charge of the data collection

2.6.4 Austrian team

The Austrian team is composed of two professionals: Pr Gert Utermann, country coordinator, who is a molecular geneticist; Dr Birgit Kunz, who is in charge of the data collection.

2.6.5 German team

The Orphanet Germany team consists of:

Pr. Jörg Schmidtke, coordinator;

Dipl. Biol. Kathrin Rommel, information scientist;

Pr. Schmidtke is head of the Institute of Human Genetics at Hannover Medical School and is chair of Human Genetics. He has a long scientific record in the molecular genetics of human inherited disease. Kathrin Rommel has a Diploma (Master's Degree) in Biology and is in the process of submitting her PhD thesis on molecular genetic studies of fibrillinopathies.

2.6.6 Spanish team

The team in Spain is composed of four professionals. Two pre-doctoral researchers Pilar Sancho and Jesus Del Valle are dedicating 70% of their time to the project and are funded by Orphanet. 30% of their time is dedicated to Doctoral courses and integration in the common educational tasks of the Department. Their activities are mainly related to the collection and entry of data and initial preparation of part of the text translations.

The coordinator for Spain, Dr. Miguel Del Campo is a geneticist and pediatrician. Dr Pérez Jurado, head of the scientific advisory board has initiated the task of recruiting the scientific advisors for Spain and contributed substantially to the translation process.

2.6.7 Swiss team

The Swiss team is composed of:

Dr Celia Blanchet-DeLozier, the Swiss Orphanet Coordinator, is a Ph.D. medical geneticist and cytogeneticist;

Olivier Menzel and Viviane Cina, biologists, have shared a part-time position and been in charge of data collection/entry;

Telassim Alberti is the Webmaster.

2.6.8 Portuguese team

The Portuguese team is composed of 2 MDs and a biochemist.

Dr Margarida Reis Lima is the National coordinator. She is a medical genetics and paediatrics senior consultant;

Dr Jorge Pinto-Basto is a medical genetics intern, assistant of medical genetics at the Abel Salazar Biomedical Sciences Institute. He acts as scientific advisor;

Dr Daniel Osorio is a biochemist. He is the information manager.

3- Collaboration Orphanet / other Rare Disease projects

3-1 Collaboration with EURORDIS

During the past year, discussions went on with Eurordis regarding a possible collaboration. They ended with a formal agreement, which is the following:

« Letter of intent - Collaboration between Eurordis and Orphanet on Eurordis Portal

The present agreement replaces the letter of intent between Eurordis and Orphanet signed on December 24th, 2002.

Several areas of collaboration have been identified:

The main objective is to continue to search for synergies and complementary approaches in the benefit of users around the new Eurordis portal and the Orphanet website

1. Content building and links between the two websites

Orphanet agrees to cooperate with Eurordis on content pages of the Eurordis website and links to useful databases.

Whenever possible links will be built between the two websites to avoid duplication and increase exchanges.

2. Development of forums

Orphanet and Eurordis will start a discussion to develop guidelines for managing forums (like rules for accepting or refusing a message and possibly for changing the title of a message to improve understanding...). On a case by case basis, forums could be identified as Orphanet only, Eurordis only, or showing both logos and being accessible from both sites.

3. Directory of patient organisations

The directory of patient organisations is a tool designed and updated by Orphanet and available through its website.

a) In countries where Orphanet teams are already in place (currently: Estonia, Lithuania, Hungary, Romania, Bulgaria, Finland, Denmark, The Netherlands, Germany, Spain, Portugal, Ireland, United Kingdom, Belgium, Austria):

- Eurordis will encourage its members to fully support data collection by Orphanet by helping Orphanet teams to identify patient associations and to validate the data.
- a Eurordis representative in the country concerned will be appointed as the advisor to the Orphanet country coordinator on any matter related to support groups and patient organisations.

b) In countries where there are no Orphanet teams currently: Norway, Sweden, Luxemburg, Poland, Czech Republic, Slovakia, Latvia) but where Eurordis has contacts, efforts will be made whenever possible to complement the directory of patient organisations with additional information.

Eurordis will

• identify possible partners in these countries

Orphanet will:

- enable the access to the database from both websites
- accept to give full responsibility for data collection and data release to partners appointed by Eurordis in countries not yet covered by Orphanet national teams
- provide tools to update the database from these remote sites
- provide training to the partners on how to use the tool

4. Other initiatives

• In the event of a database on orphan medicinal products under the responsibility of Orphanet, Eurordis will share with Orphanet information collected

- The NESTOR computer system, presently implemented in France, gives associations or national alliances the possibility to build and host their websites free of charge. Once this system is transformed to allow translation of the interface, Orphanet will make this tool as well as memory on the Orphanet server available for patient organisations at European level. It will be up to Eurordis to set up a helpline to guide people with the use of the tool to build their website.
- Should the MILOR database linking isolated patients with very rare diseases be extended to other European countries than France where it is currently implemented, Orphanet could train national helplines (starting with a few well structured organisations such as CSH in Denmark, FEDER in Spain, CAF and Climb in the UK) to the system.

More broadly, it is envisaged for both structures to share information on events of interest at European level for publication on both websites as well as other information tools.

The two partners will also invite a member of the other organisation to meetings discussing topics of potential mutual interest.

Paris, 6 January 2004

Yann Le Cam Chief Executive Officer Eurordis Ségolène Aymé Scientific Director "Orphanet "

3-2 Collaboration with EUROCAT

"Letter of intent - Collaboration between Eurocat and Orphanet

Further to several contacts, it has been decided to reinforce the collaboration between Orphanet and Eurocat through the search for synergies and complementary approaches in the benefit of users. This collaboration will be implemented in various areas:

1. Directory of relevant web sites in Orphanet

The directory of relevant web sites ("other websites") designed and updated by Orphanet will be complemented with additional links to the Eurocat web site, for each of the malformation, which is surveyed by Eurocat. The list of malformations will be provided to Orphanet by Eurocat. The link will specify "EUROCAT: European Surveillance of Congenital Anomalies, information on prevalence in Europe, site in English" with а link straight to the prevalence data pages of the website www.eurocat.ulster.ac.uk/pubdata/report8tab.html.

The forecasted implementation timing is November 2003.

Further development in early 2004 will include a summary table on each malformation in the EUROCAT website, with a specific address, to be the primary link.

2. Directory of registries in Orphanet.

Under the section "Registries" the Orphanet website will mention "EUROCAT: European Surveillance of Congenital Anomalies" with a link to the EUROCAT home page. This will be for the same list of malformations as under 1. above.

3. Links between the two websites

Whenever possible links will be built between the two websites to avoid duplication and increase exchanges. The static pages of Orphanet providing information on Rare Diseases in general will include a paragraph on surveillance, mentioning Eurocat activities with a direct link to the Eurocat website.

The Eurocat website is already listing Orphanet in its useful links. The EUROCAT website will also link with Orphanet in the prevalence data pages where a description of each malformation is given. This link will

specify "For further detail on the diagnosis and treatment of any of the malformations listed below, see Orphanet".

The forecasted implementation timing is December 2003.

4. Content building

Orphanet agrees to cooperate with Eurocat on content pages about isolated malformations, and will collaborate in prioritising malformations or syndromes on which new prevalence data should be made available Eurocat will provide a summary report on prevalence and incidence in Europe for each of the surveyed malformation. This report will be included in the summaries of the Orphanet encyclopaedia. It will state " According to EUROCAT data, the average recorded prevalence of condition X was Y per 10,000 births (including livebirths, stillbirths and terminations of pregnancy following prenatal diagnosis) in Europe 1996-2000." The forecasted implementation timing is first trimester 2004.

5. Exchange of information

The two partners will also invite a member of the other organisation to meetings discussing topics of potential mutual interest.

Paris, November 23, 2003 (issued in two original copies)

Helen Dolk Project leader Eurocat Ségolène Aymé Scientific Director "Orphanet"

4- Dissemination of results

4.1 Statistics of the server

The usefulness of the database was supposed to be assessed through the number of connections per day, number of different sites, number of countries, length of connections, types of request and analysis of messages received.

The number of connections is increasing regularly as shown on the following figures:





The current website is visited every day by 5,500 different people from over 110 countries.

A survey about the identity of the users was implemented in January 2004. It gave the following results:

The visitors are:

The patient it self	12.2%
The parents of a patient	9.8%
A family member	8.3%
MD-hospital-based	23.1%
MD-private practice	7.1%
Experts in the field of rare diseases	3.3%
Support group	2.5%
Non MD healthcare professionals	17.3%
Teacher / students	4.9%
Journalists	2.2%
Just curiousites	9.3%

4.2 List of invited conferences given by Orphanet partners in 2003:

4.2.1 Conference by Ségolène Aymé for Orphanet:

"Rare disease programmes at the EU level " European meeting on Amyotrophic Lateral Sclerosis, Reisensburg, Germany, 1 February 2003

" Maladies rares : un enjeu de santé publique "2es assises des maladies orphelines de Midi-Pyrénées, Toulouse 15 février 2003

"Enfermedades Raras en Europa: De la realidad actual a las soluciones" Universitat Pompeu Fabra, Barcelona, Spain, 27 fevrier 2003

" Information services in the area of rare diseases " Annual meeting of the European Society for Clinical Investigation » Verona, Italy. 3 april 2003

" Orphanet : a database of services in Europe " Workshop " Genetic services in the EU ", Sevilla, sapin. 8 april 2003

" Les enjeux de l'information pour les maladies rares " Colloque sur les maladies orphelines. Convention Démocrate. Assemblée Nationale, Paris. 11 avril 2003

" L'importance de la mise en place d'un registre des maladies rares " Journée annuelle de l'association Vaincre les Maladies Lysosomales. Nouan le Fuzelier, 9 mai 2003

"Human Genetic Services in Europa" La situacion de la genetica clinica en Espana a debate. Madrid, 11 juin 2003.

" Genetic testing in Europe : assessment schemes " ISTHAC 2003 Conference, Canmore, Canada, 23 June 2003

" Orphanet Pharma " Colloque du Réseau national 'Technologies pour la Santé ", Ministère de l'Economie, Paris ; 26 juin 2003

" Impact de l'information sur Internet : à propos de l'expérience d'Orphanet " Forum " Internet : un outil d'orientation vers les filières de soins " Hopital Broussais, Paris, 27 juin 2003

" Médecine de demain et besoins des patients " Les Rencontres de l'hôpital. HEGP, Paris, 3 juillet 2003

«De la recherche au traitement des maladies rares " Journées de la Fondation Recherche Médicale. 23 septembre 2003

" Diagnosis of rare diseases : how to overcome current difficulties ? " 6th International Biotech Conference, Cavtat, Croatia, 11 octobre 2003

« From bottlenecks to solutions in clinical research for rare disorders " European Conference on rare disorders and disabilities, Evry, 17 octobre 2003

" Les maladies orphelines " XVIèmes journées du médecin généraliste, Landerneau, 21 novembre 2003

" Utilité de l'épidémiologie dans les maladies rares " Session de formation des médecins de l'Association " Vaincre la Mucoviscidose ", Paris, 27 novembre 2003

4.2.2 Conference by Miguel Del Campo for Orphanet-Spain "Official presentation of Orphanet and Telegenetica " Facultat de Ciències de la Salut i de la Vida. Universitat Pompeu Fabra. Barcelona, February 27, 2003

" Dos portales para gentistas clinicos e investigadores : Orphanet y Telegentica " Miguel Del Campo, Pilar Sancho, Jesús del Valle, Luis Pérez Jurado 22 Congreso nacional de Genética Humana y 3ª jornada de diagnóstico prenatal Zaragoza, June 18-20 2003

" Orphanet : un sistema de informacion europeo sobre enfermedades raras (ER) " Miguel Del Campo, Pilar Sancho, Jesús del Valle, Luis Pérez Jurado 52 Congreso de la Asociación Española de Pediatría. Madrid, June 19-21, 2003

" Orphanet : un sistema de informacion europeo sobre enfermedades raras (ER) " Miguel Del Campo, Pilar Sancho, Jesús del Valle, Luis Pérez Jurado XIX Congreso de Medicina Perinatal, Donostia, September 20-22 2003

4.2.3 Conferences for Orphanet Italy

"Centralità della genetica nella gestione delle malattie rare", Convegno Nazionale sulle malattie rare, Catania 26.04.03 – Pr Dallapiccola

"Bioinformatica ed Epidemiologia Genetica", Bioinformatica e Biotecnologie in sanità Pubblica, Rome 05.05.03 – Dr Mingarelli

"Ruolo della genetica nella diagnosi e conoscenza delle malattie rare ", Forum and Exibition on Biotechnology and Bioengeneering, Padova 06.06.03 – Pr Dallapiccola

" Bambino con malattia rara", Il bambino con disabilità dimenticate, Rome 17.06.03 – Pr Dallapiccola

" La nuova genetica e le applicazioni in medicina perinatale ", SIP XI Congresso del gruppo di studio di Pediatria Ospedaliera, Palermo 04.09.03 – Pr Dallapiccola

" La medicina all'alba dell'era postgenomica. La biologia al letto del paziente ", ANMRIS 32° Congresso Nazionale, Vieste 03.10.03 – Pr Dallapiccola

" Il genoma imperfetto che è dentro di noi: Malattie e predisposizioni genetiche, possibilità di prevenzione e terapia", Mosaico Scienze, Cavriana 26.09.03 – Pr Dallapiccola

Orphanet-Italia team has also participated to the "European conference on rare disorders and disabilities " in Paris on 16/17-10-2003. This conference has represented a great opportunity of coming into contact with many patient organisations in Europe.

Orphanet-Italia has sponsored the art exhibition "DNart" in Rome on 26th June, 2003, within the 50th anniversary of DNA discovery, the proceeds of some works sale have been donated to Orphanet-Italia.

4.2.4 Conference for Orphanet Germany

In 2003, Pr. Schmidtke gave five seminars to MD audiences and the media on Orphanet structure, function and practical usage (Hannover, Hildesheim, Bad Nauheim, Munich, Göttingen). Pr. Schmidtke wrote an article for the Deutsche Ärzteblatt, the most widely read professional journal for German doctors, describing Orphanet; this article appeared in the 19th September 2003 issue.

4.2.5 Conference for Orphanet Portugal

"A Genética e as Doenças Raras", Lisbon, 30/05/2003, within the *1st National Meeting on Rare Disorders* - Margarida Reis Lima

5- Acknowledgement of the EU financial suport

The EU funding is mentioned on the Orphanet website. The logo of the European commission is on the front page of the site. The funding is mentioned in the pages describing the project, as shown on the figures below:





6- Conclusion

The Orphanet project is developing according to plans. The first two years were very busy ones which permitted to pinpoint all the problems for transmitting the French experience with data collection. The procedures are now well established and should be easily adopted by new partners.

The experience also clearly showed to the partners that there was a great need in getting national funding to expand the local teams. Several countries are on the way of getting complementary funding.

Many more countries would like to join, especially countries from eastern Europe. We are willing to incorporate them into the network if the corresponding funding is identified.

ANNEX 1

Members of editorial board of Orphanet Encyclopedia

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ANNEX 2

National Scientific Advisory Committees

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Pr. Ferdinando Dianzani, Infectious diseases:
Pr. Sebastiano Filetti, Internal
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German scientific committee

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ANNEX 3

Quality Charter

General principles

- ORPHANET is committed to maintain, update and develop an Internet database dedicated to rare diseases and orphan drugs.
- ORPHANET is committed to maintain an access that is both free and free of charge.
- Collection of data and dissemination of information abide by the legal provisions in force in the countries concerned: the professional code of ethics, any law on computing and liberties, on intellectual property rights and any law or regulation applicable.
- The information disseminated and the services developed comply with the codes and recommendations issued by the *ad hoc* committees recognized at the national or international level, especially concerning the respect of patients rights, the respect of the information confidentiality, the patrimoniality of medical information, the practice of on-line medicine, and the safety of networks.
- Up to now, the codes and charters to which ORPHANET has adhered are the following: (http://www.hon.ch/HONcode/Conduct.html), the eHealth Code of Ethics (http//ihealthcoalition/org/ethics/ehcode.html), the "Guidelines for Medical and Health Information Sites on the Internet" from the American Medical Association (http//pubs.ama-assn.org/ama_web.html) and the recommendations from the French National Board of Physicians (Conseil National de l'Ordre des Médecins).
- The database is under the responsibility of a scientific committee and an editorial board whose members are appointed for their expertise in the diseases considered on the proposal of the learned societies, the health authorities of the countries involved or any relevant organization. All the information available to the public is validated by a member of the committees before it is put on line.
- All the information is updated as often scientific news require it, or at least once a year for all the data, including the administrative data.
- The methods used to collect and validate the data are described below. The mention "Central Registry (CR)" means that the procedure is operated exclusively at the Paris team level. The mention "National Registry (NR)" means that the procedure applies for every partner, including France.

Languages

- Orphanet is a multilingual project. The common language between partners is English.
- The Central Registry is in charge of maintaining the database in French and English.
- Some National registries are in charge of providing translations in their national language (Germany for German, Spain for Spanish, Italy for Italian, Portugal for Portuguese).

Inclusion of diseases (CR)

- The list of diseases which are included in ORPHANET is defined as any condition, whatever its origin, which has a prevalence lower than 1 in 2,000 in the European population.
- The list is established by the central registry. All suggestions to create a new disease entry or delete an existing entry, or re-organize the classification must be adressed to David Oziel (doziel@orpha.net)

- Each disease is described by a name, synonyms, key-words using the MESH terminology. Any suggestion as to modify the name, synonyms or key-words attached to a disease should also go to David Oziel.
- The NRs are responsible for the translation of these elements in their national language if different from French and English. The central registry maintains the list in English and French
- Each disease is classified by medical specialty and placed under the responsibility of a scientific editor who is a recognised expert at the international level.
- There is at least one editor per medical specialty at the European level. The European experts form the European editorial board which is in charge of the Encyclopaedia.
- Preferably there is also one expert par specialty at the NR level. These experts form the National scientific advisory board which validates the data on services.

Textual information on each disease (CR)

- Each disease is associated with a text summarising the main characteristics of the disease, its prevalence, cause, prognosis and treatment.
- Every text is signed and dated.
- The writer is selected by the scientific editor or is the scientific editor.
- For very rare diseases the text is written directly by the CR.
- All the texts are submitted for validation to the scientific editor in charge of the disease before its release.
- The texts are updated at least once a year, and more often if new relevant scientific facts are published.
- The texts are written in an English which is understandable by any non-specialist healthcare professional.
- All the texts are written in English.
- The summaries are translated in French by the CR. Translation of the summaries in other languages has to be envisaged at the NR level providing that funding is obtained (average cost: 0.15 Eurocent per word; 200 words per summary)
- The editorial process is managed by scientific editors working at the CR.

Research projects (NRs)

- The research projects are identified using all the sources of information on research projects financed after a competitive process and a scientific evaluation.
- At the European level, the projects are those financed by the European Commission.
- NR have to establish the list of their National funding agencies. For France these sources are: INSERM, CNRS, Universities, Ministry of health and Charities like the AFM.
- The researchers are then approached to give their consent to be listed in the database and to precise the list of diseases which applies to their programme.
- The list of research projects is updated once a year.

Clinical laboratories (NRs)

- Clinical laboratories performing tests to diagnose rare diseases (no matter the methods) are identified using all the sources of information such as lists of the Ministry of Health, National reference centres, lists of professional organisations, lists established by patients support groups, lists suggested by the scientific editors.
- A questionnaire is sent to these laboratories to precise the type of activity, the methods used, the list of diseases which are diagnosed and to obtain the formal consent of the responsible person.

- All the data are validated by the national scientific expert of the relevant specialty before being released. They are updated once a year.

Specialised clinics (CR and NRs)

- Types of clinics which are relevant for each disease are defined by the CR. Suggestions can be sent by the NRs.
- List of clinics of each type are established by the NRs, using all possible sources.
- A questionnaire is sent to potential clinicians to precise the type of their activity, and obtain their formal consent.
- For highly specialised clinics, the responsible physicians have to provide evidence of their expertise (list of publications, total number of patients, number of new patients per year).
- All lists are submitted to a national expert.
- These lists are updated once a year.
- Only comprehensive lists of clinics can be released (matter of fairness).

Support groups (NRs)

- Support groups are identified using all relevant ways including a web search and a partnership with Eurordis.
- The presidents are contacted to get their permission and to establish the scope of diseases attached to their activity.

Orphan drugs (CR)

- All Orphan approved (in the US, Japan, Europe) drugs or non-orphan approved drugs with a specific indication for a rare disease are put in the database.
- The lists are established using the information available at the relevant governmental agencies.

Web sites (CR)

- Each disease is linked to other web sites.
- Each web site is evaluated for its relevance, consistency, credibility.
- The URL addresses are re-checked once a month.
- The web sites are listed with a comment on the language used and a description of the type of information which may be expected.
- Only sites run under the responsibility of a public agency or a non-profit organisation are listed.

Design charter(CR)

- There is a design charter which has to be respected.
- The Orphanet logo is put on all documents used to run the activity.

European Website (CR)

- There is a European website at the address: <u>www.orpha.net</u> which is placed under the editorial responsibility of the CR.
- Other URL have been bought. They redirect to <u>www.orpha.net</u>.
- The static pages on the European website give general information on rare diseases, orphan drugs, the Orphanet project, the ethics charter and the procedures.
- These texts are maintained in French and English by the CR. They are translated into national languages by the NRs.

National Websites (NRs)

- NR may establish a national website of their own to give additional information that is only relevant at the country level.
- The address of the national website has to be www.orphanet.it/de/be.....
- National web sites respect the design chart and the logo
- Their front page has to give access to the CR website.

Logos

- The front page of the European website contains logos of all the agencies providing funding for the European project.
- The front page of the national websites contains logos of all agencies providing funding for the national projects.