



**Project Title: Eurocord-Ed:  
Online Curriculum on Cord Blood Technology**

**Project Number:  
142288-LLP-1-2008-FR-Leonardo-LNW (2008-1947)**

**Grant Agreement:  
2008-1947-001-001**

**Sub-programme or KA:  
Leonardo Da Vinci Stakeholder Network142288-LLP  
Final Report                      Public Part**

## Project information

Project acronym: Eurocord-Ed

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Project website: [www.eurocord-ed.org](http://www.eurocord-ed.org)

Reporting period: From 01/10/2008  
To 30/09/2011

Report version: **FINAL**

Date of preparation: **September 30, 2011**

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This project has been funded with support from the European Commission.

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# Executive Summary

## TARGET AUDIENCE

This report is intended for European citizens with an interest in the field of umbilical cord blood including scientists, medical specialists and other vocational actors working in the field, but also pregnant women and healthcare policy makers at the local, regional, national, or European level.

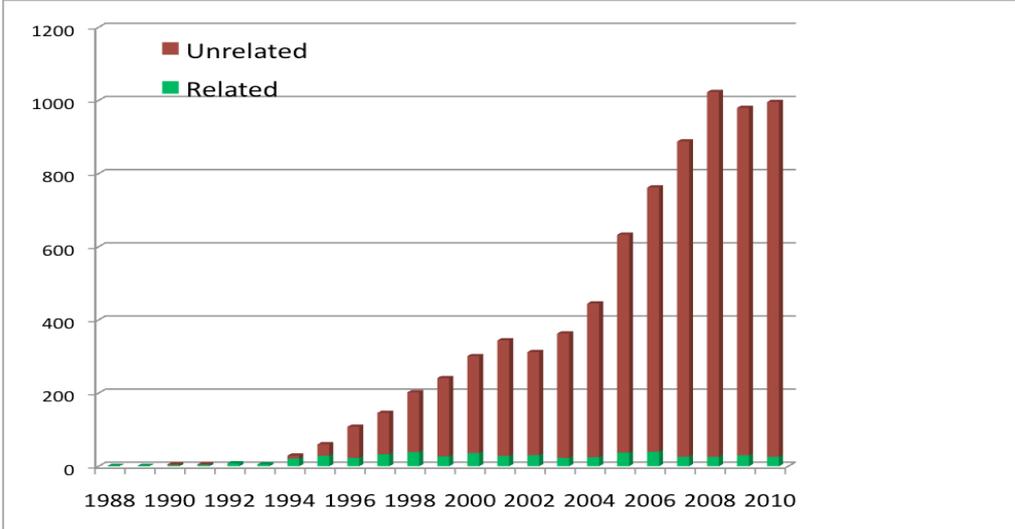
## PROJECT OBJECTIVES

Haematopoietic stem cells derived from umbilical cord blood saved a life for the first time in 1988. This pioneer transplant took place in Europe.

Cord blood is a safe, painless and ethical source of stem cells that can be used to treat many serious, life-threatening diseases. Research on these stem cells promises to open new therapeutic horizons in the framework of Regenerative Medicine. And yet, in Europe, the umbilical cord is often considered as surgical waste and so simply discarded.

Since 1988, cord blood transplantation has become a rapidly growing field with an increasing number of indications worldwide. The results reported by Eurocord reflect a strikingly rapid, geographically unequal increase in activity (fig 1 & 2). The Asian Pacific Blood and Marrow Transplantation Group reported 937 cord blood transplants in 2008 alone. In the USA, more than 40% of paediatric unrelated transplants are provided by cord blood.

EUROCORD data:



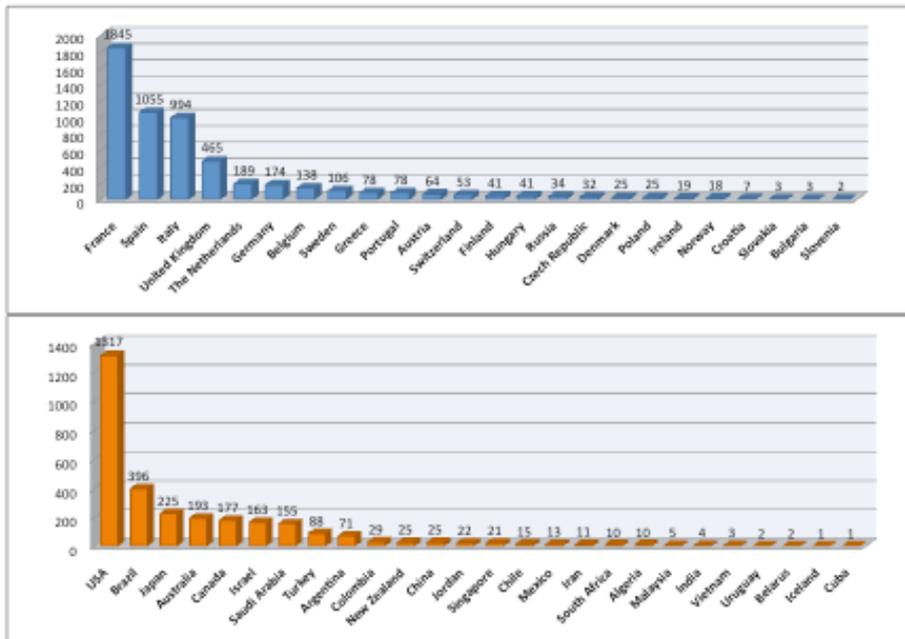
A large number of cord blood banks have been established throughout the world in order to facilitate unrelated cord blood transplantation. Over the years the number of units collected in Europe has increased to approximately 190.000 in 2011.

Furthermore, current research on haemopoietic stem cells derived from cord blood has sparked hope that in the future these cells may prove useful to treat or repair a variety of different organs and tissues.

This very broad scope of therapeutic applications and perspectives engages the competencies of many different vocational actors, including biologists and medical specialists (notably haematologists, transplant physicians, immunologists, obstetricians), personnel of cord blood banks, midwives and nurses. This makes cross-communication a challenge. The field has also become scientifically and commercially highly competitive at the international level



## Number of CBT reported to Eurocord per country



Therefore, the Eurocord-Ed project was conceived within a ‘blended learning’ approach to lifelong learning, as a comprehensive, multilingual, online vocational training tool in the field of umbilical cord blood. It also intends to promote communication and exchange between vocational actors at the pan-European and international levels. It is expected to have a positive impact on the quality and international visibility of the European education and research areas.

Although Eurocord-Ed is designed as an educational platform for vocational actors, it is also a source of scientifically reliable, peer-reviewed information for future parents who are often subjected to misleading information disseminated by commercial entities.

Finally, the Eurocord-Ed Consortium is also expected to be a source of information and advice to healthcare decision makers.

### **PARTICIPANTS INVOLVED**

The Eurocord-Ed project’s consortium is comprised of close to forty members from eleven countries of the European Union. They represent many major European partners including EUROCORD, NETCORD, the European School of Haematology, the European Group for Blood and Marrow Transplantation, the European Hematology Association as well as the umbilical cord blood banks from Milan, Barcelona, Leiden, Liège, and Athens. In addition basic research groups, a licensed Tissue Establishment and biomaterials storage company, a manufacturer of integrated systems for transfusion centres, and a research and development company specialised in the interface between technology and business in the field of life sciences are actively involved in Eurocord-Ed. The Coordinator of the Consortium is Eliane Gluckman who performed the first cord blood transplantation in the world, in 1988. The majority of the Consortium workpackage leaders and members are medical specialists and distinguished international experts in the field of cord blood biology, technology and clinical applications; or individuals who preside over and/or direct the partner organisations they represent. They notably include Sergi Querol, director of the Barcelona Cord Blood Bank; Paolo Rebulla, Director of the Milano Cord Blood Bank, Etienne Baudoux, director of the Liège Cord Blood Bank, Catherine Stavropoulos, director of the Athens Cord Blood Bank; Willem Fibbe, director of the Leiden Cord Blood Bank. Other Consortium members include Tamas Masszi, chair of the EBMT Education Committee, Didi Jasmin, Executive Director of the European

School of Haematology and Carin Smand, Managing Director of the European Hematology Association. The consortium is also comprised of SME's from the biomedical industry such as Peadar MacGabhann (Biostór Ireland), Isabelle Rodde-Astier (MacoPharma) and Vanessa Hanifa (Alcimed). The strength of the consortium lies in vast and extensive experience of the members as well as in their commitment to improving the health care offered to the citizens of Europe.

### **APPROACHES USED**

Eurocord-Ed implements a blended learning approach to vocational training. The European Commission Leonardo da Vinci Lifelong Learning grant was used exclusively for the development of an online platform for vocational training ([www.eurocord-ed.org](http://www.eurocord-ed.org)), to produce content for this platform and to inform vocational actors and healthcare decision makers of the interest of cord blood and of the existence of the Consortium and its online platform.

The first challenge the Consortium faced was to produce an extensive User requirements Specification (URS), test, review and implement a website portal with comprehensive and flexible technology allowing it to prepare for the organization and flow of a large number of diverse on-line documents prepared for individuals working in different vocational sectors, even if they all contribute to the same field of cord blood technology and clinical applications. These materials had to be easily accessible to the user in a format useful and convenient to him/her. The website technology also had to be able to respond to future training assessment. This implied consultation and testing on the part of ICT experts, experts in the field of haemopoietic stem cell transplantation from within the Consortium and without, and individuals working in the field of education.

The second challenge was to transfer the website and its content in-house and to teach all the Consortium members how to manage and update it on a daily basis. This was accomplished during the second half of the project and will contribute to future self-sustainability of the project.

Turning towards the question of content, the Consortium members worked together to identify and classify already existing documentation in the fields of Cord Blood Banking, Cord Blood Technology, and Clinical Applications using Cord Blood, and Quality Assurance and Ethical Use of Cord Blood Products. They adapted this information to the website environment. They also developed new materials including full webcasted conferences and animated PowerPoint presentations on a broad range of topics. Training videos on Standard Operating Procedures used in the laboratory, the hospital or in the cord blood banks were prepared. Information on European directives and national legislation relevant to the field was made available on the website. Open Expert Forums during which Consortium experts are available to discuss clinical cases either prepared by themselves or submitted by Eurocord-Ed members were initiated. To date, several discussion forums on cord blood transplantation have been conducted. This has provided a format for problem-solving that helps individuals and organizations involved in cord blood transplantation to receive personal guidance for difficult clinical cases. Other Expert Forums address questions related to the technological or scientific aspects of cord blood. Contributions to the debate on private, public and hybrid cord blood banking systems have been made and filmed for the website.

Eurocord-Ed content is often provided by the Consortium members or by invited experts. Other individuals and organizations working in the field are also invited to submit documents that are posted on the website after peer-review. All documents made available on Eurocord-Ed have been peer-reviewed by the Consortium. They are uploaded only after final approval has been given by the relevant Workpackage Leader and the Consortium Coordinator. Expertise from outside of the Consortium is elicited when required. In this way, the platform remains a source of scientifically validated, reliable information.

Self-assessment tools designed to enable viewer to assess their knowledge, are associated with a growing number of documents available on the website. The tools are often presented as multi-choice questionnaires presented at the end of the learning activity. Increasingly, however, they take the form of pre- and post-activity multi-choice questionnaires enabling the viewer to measure knowledge acquired through the Eurocord-Ed activity. When the viewer responds correctly, he/she can download a personalized Eurocord-Ed e-validation certificate.

Eurocord-Ed aims to be a multilingual tool. To date, 21 languages are represented on the website in different types of documents (texts and publications, videos, webcasted lectures, PowerPoint slides, clinical cases etc.). The Eurocord-Ed website and the written content available on the website can be translated into English, French, German, Italian and Spanish thanks to an integrated Google translation function.

Eurocord-Ed members have free access to the full REVERSO translation tool that enables them to copy and paste for translation the text of their choice into a large range of languages.

The Eurocord-Ed Consortium worked intensively to develop an English-Italian dictionary of cord blood terminology. The Eurocord-Ed dictionary has notably been used for the translation of Standard Operating Procedures. It is now available within the REVERSO tool to Eurocord-Ed members. The Consortium is now extending this dictionary to other languages.

Eurocord-Ed has also co-organized a series of annual World Cord Blood congresses. The plenary lectures and interactive discussions of the meetings have been incorporated in webcasted form into the Eurocord-Ed online platform, thus allowing a much larger community of vocational actors to access these high quality educational materials at a time and place convenient to them. Many of these webcasts are presented in English. Some are accompanied by a synchronized text format. Future projects include the development of multilingual subtitles. Future projects also include real time WEBEX access to World Cord Blood congresses and Meet the Expert Forums organized with the WCB faculty members.

The website portal and content is evaluated in an on-going manner by the Consortium members. Eurocord-Ed systematically encourages website users to make comments and suggestions for improvement so that the project is shaped according to its users' needs. User feedback is reviewed and used to improve the website in terms of relevance, user friendliness and accessibility. Comments and advice are also elicited on specific issues from specialists outside the Consortium.

The website also benefits from constructive criticism and advice on the part of independent experts in cord blood, haematology and ICT, and from Eurocord-Ed users. This advice has been very useful, resulting in a total redesign of the website navigation throughout 2011. A 'How to Use Eurocord-Ed' section has been added to the website as a first step to the development of detailed educational algorithms, pathways and scenarios directed towards vocational actors with specific areas of interest and level of expertise. This will be a major future focus for the Consortium.

### **MAJOR RESULTS/PRODUCTS ACHIEVED TO DATE**

Eurocord-Ed is a project for blended learning and vocational training in the very multidisciplinary field of cord blood biology, technology and clinical applications. Thanks to the European Commission's Leonardo da Vinci Life Long Learning grant, the Consortium has constructed a multilingual online platform [www.eurocord-ed.org](http://www.eurocord-ed.org).

#### ***Website content:***

The website currently includes hundreds of different documents including 127 webcasted lectures given of international experts in the field, many animated PowerPoint slides, videos on techniques and Standard Operating Procedures, as well as publications and other texts including European directives and national legislation. Eurocord-Ed also generates real time interactive discussions open to the international cord blood community in the form of clinical case discussions and Meet the Expert forums; the materials used as a basis for these discussions change for each meeting.

Three successful World Cord Blood Congresses with high-level, international, multidisciplinary attendance have been organized by the Consortium; this has provided content for the website and contributed to international dissemination of the Eurocord-Ed online platform.

#### ***Comparing transplant activity worldwide:***

The wealth of documents available on the website notably allows the viewer to compare transplant activity, indications, regulations and quality standards in Europe and in other regions of the world.

**Quality control:**

The Eurocord-Ed website has been awarded HON accreditation.

Its content is peer-reviewed by international experts.

Self-assessment and e-validation tools have been implemented on the website so as to allow users to evaluate new knowledge and skills acquired via the Eurocord-Ed website.

International experts outside of the Consortium are regularly requested to evaluate the website design, navigation and content, and to make suggestions for improvement.

Eurocord-Ed members are regularly consulted and their comments and suggestions drive actions to improve the website structure and content. Future projects include the development of regular Eurocord-Ed surveys that will help to shape the website to meet learning needs.

**Languages:**

The Eurocord-Ed platform (framework and texts) is available in 5 languages. Twenty-one languages are represented among the documents available on the website. The platform also provides access to integrated tools for translation to many other languages. Furthermore, the Consortium has developed an English-Italian dictionary on cord blood terminology, and has plans to extend this tool to other languages.

**Dissemination and Exploitation:**

Eurocord-Ed has established links with other expert individuals and organizations at the international level, so that high-level content generated by others is also available at [www.eurocord-ed.org](http://www.eurocord-ed.org)

The Consortium has also produced recommendations in the field of cord blood for policy decision makers.

In France, representatives of Eurocord-Ed were consulted and Eurocord-Ed co-organized a conference on cord blood that took place at the French Senate. The Consortium members are pleased to note the recent change in legislation that has modified the status of cord blood from surgical waste to therapeutic product. The Consortium Coordinator is currently invited to participate in the French National Ethics Committee discussions on cord blood.

The Eurocord-Ed Consortium hopes to contribute to shape healthcare decisions so that cord blood units are available to patients who need them today and tomorrow.

The website statistics currently indicate:

- Over 1500 registered members who have asked to receive regular e-alerts and news from Eurocord-Ed
- Unique Visitors: 7,933
- Visits: 13,904 from 115 countries
- Page views: 47,523

**Lessons learned:**

The development of the Eurocord-Ed website has been a technological, scientific and organizational challenge.

Intense effort has been devoted to the development, testing and improvement of the platform itself and has required the expertise and good will of many individuals and organizations inside and outside the Consortium. Furthermore, the work-flow involved in classifying and uploading the vast amounts of existing content to the online platform was much more time-consuming than initially planned.

The decision to import the website platform in-house so as to take control of its upkeep, improvement and content was cost-efficient and necessary for future self-sustainability, but it was time consuming and it delayed the development of detailed learning pathways and scenarios. This will be the focus for the immediate future.

Some of the webcasts on Eurocord-Ed have been accredited by the American Continuing Medical Education (CME) accreditation system. However, in Europe, the Consortium discovered an unforeseen difficulty: contrary to the situation in North America where on-line distance learning is a

recognized source of lifelong learning, very few national accreditation systems in Europe accredit distance learning tools and the EHA pan-European accreditation body for haematology has not implemented this accreditation activity, although this was their intention at the beginning of the project. This difficulty is also an opportunity: Eurocord-Ed is considering developing a multi-organization accreditation system for distance learning in haematology, and in particular in cord blood technology and clinical applications.

### **PLANS AND PROSPECTS FOR THE FUTURE**

Eurocord-Ed will continue to generate new training tools and to nourish the website so that it remains a valuable resource for vocational training. The funding for several upcoming Eurocord-Ed projects (2012-2013) is already partially secured. These include live meetings in Europe and other regions of the world, and their accessibility on Eurocord-Ed in WEBEX or webcasted format.

The focus for the immediate future will be to develop learning algorithms and scenarios in order to help the individual vocational actor access the information that is best adapted to their needs and personal learning rhythm. Contact has been made with an expert in pedagogics for this purpose.

The Consortium plans to apply to European Commission to extend the scope of Eurocord-Ed and to develop a CME accreditation system for e-learning.

### **DETAILS OF THE PROJECT WEBSITE**

The Eurocord-Ed website was launched in March 2009. After one year of testing, the site underwent its first major update to respond to the comments and suggestions of users. The three main goals of the site's restructuring were to make the site user-friendlier and to improve flow so that all target groups are able to find the relevant information they are looking for. At project midterm, the website was imported in-house and Eurocord-Ed became fully responsible for the technical aspects of website and content update and improvement.

The homepage contains the website's menu, breaking news in the field of cord blood technology, upcoming congresses, the latest articles and webcasts. The menu is divided into key areas of News and Events; Research and Development; Education and CME; Cord Blood Banking; Regulation, Ethics and Quality Affairs; Expert Q&A Forum; Cord Blood Transplantation; Useful Links; Careers; How to Use Eurocord-Ed; Partnerships and a Link to the Administration Section. Documents are available in video and text form. The Real Time Meet the Expert Forums focus on problem-solving and are designed to allow vocational actors to ask Eurocord-Ed international experts for guidance on specific clinical, technological or other questions. Forums are organized once every two weeks and the rendezvous is announced on the website homepage, on the Eurocord-Ed LinkedIn group and via Twitter. Clinical cases and other specific questions for discussion can be submitted in advance or in Real Time.

The private section of the website allows consortium members to upload documents for the project leader's approval. It also houses a database of users.

The Consortium has uploaded documents in a total of 21 languages on the website. Eurocord-Ed also offers translation tools that allow the viewer to read the website's frame and written content in a variety of languages. Furthermore, the Consortium has developed an English-Italian dictionary of cord blood terminology that will be progressively extended to other languages. This dictionary has been inserted into the REVERSO translation tool that is available to Eurocord-Ed members on the website. Viewers can insert the text of their choice for translation into the tool. This is time and cost efficient. Furthermore, the Consortium continues to test different mechanisms to assist comprehension of oral presentations, including synchronized transcription and multilingual subtitles.

The website's technology provides opportunities for self-assessment in the form of pre- and post activity multiple-choice questionnaires. These are linked to an e-validation tool that allows the viewer to download a personalized certificate certifying that he/she has successfully completed the questionnaire.

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# 1. Project Objectives

In 1988, the parents of a very sick American child accepted that their little boy should travel to Paris to become the first recipient of a cord blood stem cell transplantation. In doing so, they saved his life and allowed him to become the fully recovered adult, husband and father he is today. Twenty-three years later, cord blood transplantation is used to treat a broad range of clinical, life-threatening disorders.

The procedure to harvest the stem cells from the umbilical cord after birth is totally safe and painless for both the mother and the child. And yet, families are not well informed that the donation of an umbilical cord can save lives. The umbilical cord and the precious stem cells it harbours are generally simply discarded.

To improve this situation, it is necessary to raise awareness through a chain of solidarity linking the general public to the vocational actors involved in the field and to healthcare decision makers. It is also essential to promote communication between the vocational sectors active in cord blood technology and clinical applications and to provide lifelong learning tools to improve and harmonize professional knowledge and skills.

Eurocord-Ed is a very diverse, multilingual project for on-line vocational lifelong learning in the fields related to cord blood technology and clinical applications. It is an essential part of a blended learning approach to learning in the field, designed to complement and extend the reach of Eurocord-Ed and other live training activities. It aims to be an easily accessible lifelong training tool for the many vocational sectors involved in cord blood technology and clinical applications, and to foster communication and exchange between vocational actors and vocational sectors who are separated by constraints notably linked to geographical setting and language. It is also designed to be a resource for healthcare policy makers.

As a resource for lifelong learning, Eurocord-Ed offers new, easily accessible opportunities to improve knowledge and skills. Webcasted scientific, technical and clinical conferences, Standard Operating Procedures, articles, links to publications, information on upcoming conferences and seminars, information on quality standards and guidelines as well as on regulatory and ethical issues can all be found on Eurocord-Ed. Video demonstrations of technical procedures, interactive Meet the Expert case study and technological problem solving sessions are available in Real Time.

The Eurocord-Ed Consortium and website is a source of reliable, expert information. Most content is generated by distinguished international experts recognized for the quality of their contributions to the field. Documents have also been submitted to the Consortium following open calls for contributions; these documents are carefully reviewed and made available on the website when appropriate.

The Eurocord-Ed Consortium is available to healthcare policy decision makers seeking counsel so as to identify forthcoming health needs. Also, many of the documents available on the Eurocord-Ed online platform will be useful to healthcare decision makers. These include comparative reports on activity and outcomes in the field worldwide as well as policy recommendation in the field of cord blood banking.

The website can also serve as a validated source of information for the general public with interesting potential economic spin-offs. The field is evolving very rapidly at the international level with strong investment on all continents. Eurocord-Ed will contribute to the visibility of Europe in the highly competitive international arena.

Eliane Gluckman who performed the first cord blood transplantation worldwide leads the Eurocord-Ed Consortium. She is also the founder of Eurocord, the European organization for clinical activities in the field of cord blood. The Consortium includes representatives of the major European organizations involved in the field of stem cell transplantation, including the European Organization for Blood and Marrow Transplantation, Netcord (the organization that federates accredited cord blood banks) and the European Haematology Association. It also includes the European School of Haematology, the only European organization entirely devoted to lifelong learning in haematology.

Cord blood banks, universities and public research organizations are also involved in the project that also includes three SMEs. The individuals involved in the direction of Eurocord-Ed are all internationally recognized experts in their fields.

So as to ensure that the project develops according to identified needs, it calls for continuing quality control on the part of those who use the website. Remarks and suggestions for improvement received from Eurocord-Ed users will continue to contribute to shape the website's design and content in the future.

The Eurocord-Ed Consortium strongly believes that this novel lifelong learning tool will contribute to improve and harmonize knowledge and skills of the professionals involved in cord blood, at all levels. It will also promote cross-disciplinary fertilization and exchange, thus contributing to the development of human potential and technological means, and to the acceleration of progress. Mainstreaming activities of Eurocord-Ed should continue to raise awareness at the political level of the importance of progress in the field in order to meet current therapeutic needs and to prepare for future clinical challenges in the field of Regenerative Medicine. Ultimately, it is the patient who stands to benefit from this collective effort.

Workflow Chart LdV 2008-2011:

## Work Packages 1-10

**WP 1 (MAN1) Management:**  
**Scientific and Administrative Governance: steering committee**  
**Chairs: E. Gluckman and WP chairs**

**Development in the field of Umbilical Cord Blood biology, banking and transplantation:** Developing and validating vocational training in the different fields related to cord blood, in a user-friendly, interactive setting.

**WP2** Cord blood banking  
Chair: P. Rebutta

**WP3** Research and technology  
Chair: W. Fibbe

**WP4** Cord blood transplant  
Chair: V. Rocha

**WP5** ICT development  
Chair: P. Mc. Gahhann

**WP6 (QA) Quality, regulatory and ethical issues:** Implementing quality assurance; improving understanding of ethical and regulatory issues; facilitating professional co-operation and mobility.

Chair: J. Garcia

**WP7 and 8 (DIS) Dissemination of above knowledge, skills and qualifications:** Raising awareness and disseminating results; contributing to improve, harmonize and pool knowledge and skills throughout the European Union and its Associated States.

Chair: D. Jasmin

**WP9 and 10 (EXP) Exploitation:** Transferring results to appropriate decision-makers in regulated local, regional, national and European systems.  
Convincing individual users to regularly use EUROCORD-ED lifelong training and to measure and validate newly acquired knowledge and skills.

Chairs: Mainstreaming: N. Hamilton / Multiplification: F. McDonald

## 2. Project Approach: [www.eurocord-ed.org](http://www.eurocord-ed.org)

### **DESCRIPTION OF METHODOLOGIES:**

Eurocord-Ed is an important new component to blended learning in the field. The project was launched in response to a need increasingly expressed within the international community of biologists and physicians. They felt that there was a need to improve and harmonize knowledge amongst vocational actors, at the pan-European level, and that an online platform could contribute to increase communication and cross-fertilization between the diverse vocational sectors involved in the field of cord blood biology, technology and clinical applications. It was also felt that this approach could contribute to develop a critical mass of interacting vocational actors at the pan-European level, and so raise awareness of the therapeutic value of cord blood stem cells among healthcare decision makers.

The members of EUROCORD and ESH first agreed that a platform for online vocational training would be a cost effective approach to improve and harmonize knowledge in the field and that it could contribute to improve communication between its many vocational actors. They also agreed that it would provide a setting for rapid translation of new scientific and clinical findings into educational opportunities in a variety of languages. This led to the creation of the Eurocord-Ed Consortium that includes haematologists and transplant physicians, biologists, experts in education and ICT, representing the academic and the commercial sectors.

A first website was initially developed and its functionalities were tested within the Consortium. External advice with regards to presentation, organization and content was elicited from physicians (haematologists, obstetricians), basic and clinical researchers, heads of cord blood banks outside of the Consortium, in Europe and abroad. The pilot website was publicly launched with very limited content in March 2009 and members of the cord blood community worldwide were invited to use it and to communicate their comments and suggestions for improvement to the Eurocord-Ed Consortium. This revealed avenues for improvement, including design and navigation; type, diversity and classification of content; and multilingual accessibility.

Although the design and development of the website itself was subcontracted initially, additional needs in terms of website presentation and organization were identified, it became possible to envisage further development and content management from within Eurocord-Ed. During the second half of the project, the website was transferred to the Eurocord office where responsibility for subsequent website improvement in design and upkeep was assumed.

With a view to long-term financial sustainability, the Eurocord-Ed Consortium Workpackage leaders learned how to edit and upload documents onto the website. Tools for webcasting activities were also purchased and tested so as to enable the Consortium to generate materials for the website at low cost.

Suggestions from website users and surveys circulated to Eurocord-Ed members will continue to shape new improvements.

### **PARTICIPANTS:**

The Eurocord-Ed Consortium comprises 15 organizations, and individuals with complementary expertise in the field of cord blood technology and clinical applications:

The Consortium is led by Professor Eliane Gluckman (Paris) who performed the first cord blood transplantation worldwide. She presides over Eurocord, which is the European organization for cord blood transplantation. Eurocord works with Netcord and EBMT, also members of the Consortium, to collect and validate clinical outcomes from patients transplanted with Netcord blood units or a cord blood unit in an EBMT centre and in other parts of the world. The EUROCORD Executive Board includes scientists and physicians, haematologists and obstetricians.

Netcord is a not for profit association of 30 umbilical cord blood banks and registries with an inventory that represents about 62% of the global supply of publicly banked cord blood.

The European Group for Blood and Marrow Transplantation (EBMT) allows scientists and physicians involved in clinical bone marrow transplantation to share their experience and develop co-operative studies. It promotes all aspects associated with the transplantation of haematopoietic stem cells from all donor sources and donor types including basic and clinical research, education, standardisation, quality control, and accreditation for transplant procedures.

The European Haematology Association (EHA) is Europe's largest comprehensive haematology society, including members who work on the biological and/or clinical fields aspects of cord blood.

The European School of Haematology (ESH), founded in 1986, is the only European organization entirely devoted to lifelong learning in haematology.

The Consortium also includes public cord blood banks located in Milan, Leiden, Athens and Liège.

Basic research is represented within the Consortium by INSERM (*Institut National de la Santé et de la Recherche Médicale*). The Biomedical Research Foundation Academy of Athens contributes its expertise in immunology, and regulatory and ethical affairs. The Hungarian Society of Haematology and Transfusiology contribute clinical expertise in the field and opens avenues for dissemination and multiplication to the other EC countries.

The Consortium also includes 3 commercial entities: Biostór Ireland, an independent accredited Tissue Establishment for storage and distribution of biological materials; Macopharma, that creates and develops biotechnology systems for use in transfusion centres and hospitals and Alcimed, a consulting firm with expertise in research & development, marketing and corporate strategies and was chosen by DG SANCO to make a proposal for a quality system guide for establishments working with substances of human origin. Alcimed will contribute content on banking procedures and quality standards.

These organizations constitute the Consortium itself. Their complementarities in terms of scientific, technical, clinical and educational expertise at the pan-European level add value to the quality of the project. The fact that certain members of the project have contributed as experts to the development of EC directives relevant to cord blood technology is also extremely important for the ethical and regulatory aspects of the project. The fact that these organizations and the individuals that represent them are located throughout Europe and work in collaboration with disciplines not directly represented within the Consortium (midwives, nurses, technicians) is an added value in terms of Eurocord-Ed multiplication activities. Several Consortium members have large databases that support dissemination activities beyond Europe.

The Consortium has reached out towards potential users worldwide in order to elicit comments and suggestions for improvement as well as direct contributions for Eurocord-Ed e.g. in scientific, regulatory, quality and ethical issues. These contributions are peer-reviewed by the Consortium members, and by other experts when necessary, before being made available on the Eurocord-Ed website.

#### **DISSEMINATION AND EXPLOITATION:**

Dissemination and exploitation activities were initiated from the start of the project to raise awareness among potential users and to elicit their comments and suggestions so that Eurocord-Ed could develop in response to their needs. These initial dissemination activities were based on articles written for newsletters produced by the organizations involved in the Consortium, or published in journals destined for healthcare policy decision makers.

Once the pilot website was launched in March 2009, dissemination activities were based on the establishment of hyperlinks with other relevant websites, the circulation of e-announcements to potential visitors each time new content becomes available on the website and demonstrations in plenary sessions or from booths within the commercial exhibition of relevant national, pan-European and international conferences and congresses. The Consortium also developed a newsletter called the Quarterly Accord for electronic circulation. It has also developed vocational electronic databases that are used as tools to disseminate information on Eurocord-Ed objectives and results.

Further development of these databases will be important to future multiplication activities in order to inform a growing number of relevant vocational sectors not directly represented within the

Consortium (midwives, nurses, technicians, data managers). These vocational actors will also continue to receive information through contacts established by individual members of the Consortium.

Other multiplication activities developed naturally as an extension of dissemination activities, and vocational actors worldwide receive information on Consortium activities in general, and Eurocord-Ed in particular. Eurocord-Ed has been presented in over 50 relevant conference and congresses all over the world since the beginning of the project. It has also co-organized a number of live international activities the content of which has been transferred to the website in order to make it available to a larger number of vocational actors over a longer period of time. These live activities include three World Cord Blood Congresses organized during the life of the EC contract. They also include one further financially self-sustained World Cord Blood Congress that took place just after the end of the LdV project. World Cord Blood congresses attract participants from all over the world. Organizations and cord blood banks outside of Europe have asked to become Eurocord-Ed corresponding members; they receive information about Eurocord-Ed on the Internet, at international congresses, through articles published on the project, or simply by word of mouth.

Although the project is a vocational training tool, it is also drawing the interest of postgraduate and post-doctoral students and as a tool to 'train trainers'. Eurocord-Ed members who are also trainers have informed the Consortium that they use the website during teaching activities directed to groups of junior vocational actors (transplant physicians, laboratory technicians, cord blood bank technologists).

Articles on Eurocord-Ed have been published in journals targeted towards policy decision makers. Eurocord-Ed Consortium partners are also being elicited for information and counsel by education and healthcare policy makers in some European countries.

Finally, although the website is designed to be a vocational training tool, Eurocord-Ed may also prove useful for the general public, providing them with reliable, scientifically validated information. This should promote compliant donations of umbilical cords, in accordance with the European directive 2004/23/EC.

### **THE VALUE ADDED APPROACH USED**

It would have been impossible to produce an educational tool of equivalent scientific value at the national level. This project requires the input of eminent European experts and organizations in the field of cord blood technology and clinical applications and these experts are located throughout Europe.

Since the launch of Eurocord-Ed close to 8000 people from 115 countries have visited the site. 43% are returning visitors who use the website to gain access to a variety of educational materials including several video webcasts of recent international conferences in the field. Over 1500 users have registered to receive regular e-alerts and newsletters from Eurocord-Ed.

To date, the website visitors notably include academic scientists and physicians, cord blood bank technicians, as well as consultants and representatives from industry.

As an on-line distance-learning tool, Eurocord-Ed provides unique educational opportunities at a time and place convenient to the user. This is an important added value for many people, in particular for those who cannot travel to a live meeting because of economic, health-related or family related constraints.

The technological aspects of Eurocord-Ed make it possible to view and review its educational content according to each user's personal rhythm. This represents an added value in terms of efficacy of education. Users can listen to and visualize key opinion leaders without having to leave their desk. They can also review content from conferences they attended, or not.

Various forms of self-assessment and validation tools have been tested throughout the life of the project. This has led to a format of pre- and post activity Multiple Choice questionnaires linked to personalized Eurocord-Ed e-validation certificates. The Consortium is now associating these tools with the documents available on the website. These tools represent an added-value for the user since they allow him/her to assess newly acquired knowledge and skills. Strategies to measure

learning outcomes and determine changes in professional behaviour following learning need to be developed and if this acquired knowledge is effectively transferred to the professional setting, the result will be a significant added-value for patient care in the European Union.

Eurocord-Ed can be used to train trainers. It can also contribute to the training of graduates (PhD) and undergraduate students, and to facilitate their integration within their professional community.

Information on regulatory issues will help Eurocord-Ed users to improve their understanding of EU Tissues & Cells Directives and national regulations and result in more uniform standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells throughout the EU. This will help Tissue Establishments prepare for accreditation/licensing inspections by their competent authority.

The information and training available on Eurocord-Ed will inform its users of the recommendations for quality standards developed by expert international organizations such as EBMT and FACT/Netcord and help them to implement them in their own workplace. This will help them to prepare for accreditation inspections as Tissue Establishments.

The Eurocord-Ed platform is also a network where vocational actors in the field can connect and develop future collaborations.

The Eurocord-Ed Consortium is a group of internationally recognized experts from different European countries whose advice on issues related to cord blood biology and clinical applications should be of value to healthcare decision makers. The Consortium is already been consulted in four European countries (France, Italy, Spain and Ireland) and would be pleased to help to shape healthcare policy to respond to the needs of patients for whom cord blood stem cells hold vital therapeutic value.

### **THE EVALUATION STRATEGY, APPROACH AND RESULTS**

Evaluation of Eurocord-Ed is based on qualitative and quantitative measures.

Qualitative assessment of the website is based on the feedback received from within the Consortium, from individuals outside the Consortium consulted for their specific expertise, and from website users who are invited to share their comments and suggestions for improvement. This feedback is considered by the Consortium and the website is shaped by it when appropriate.

Evaluation in terms of assessment of newly acquired knowledge and skills is referred to in the previous section of this report.

New tools are progressively developed, tested, implemented and amended according to the needs expressed by the professional community and evaluated by the Consortium.

Quantitative assessment is based on the number of website users, their workplace and their specific professional discipline. The pilot website was launched in March 2009 with limited content. This content has progressively increased in quantity and diversity. To date, over 1500 visitors have asked to receive regular news alerts and newsletters from Eurocord-Ed. The website has welcomed close to 8000 unique visitors from 115 countries. Over 43% are returning visitors. They have viewed over 47,500 web pages. To date, Eurocord-Ed users are mostly scientists, physicians, cord blood bank technicians and representatives of commercial entities such as biotech companies.

### **DISSEMINATION AND EXPLOITATION**

Eurocord-Ed dissemination activities were initiated at the beginning of the project. They have led into exploitation activities as Eurocord-Ed becomes increasingly known at the international level and as new groups of professional actors become aware of it.

#### **Dissemination activities :**

- Over 40 links have been established between the Eurocord-Ed website and the websites of national and international organizations active in the field of cord blood technology and clinical applications.

- Flyers announcing Eurocord-Ed live and/or online learning opportunities have been circulated at dozens of relevant conferences and congresses in Europe, North and South America and Asia.
- Vocational e-mailing lists have been compiled in different sectors (haematologists and transplant physicians, cord blood banks, obstetricians, midwives, nurses, healthcare decision makers) and Eurocord-Ed e-announcements have been circulated throughout them, on an almost weekly basis.
- Demonstration activities have been conducted at over 50 relevant conferences and congresses worldwide. These include demonstrations from exhibit booths and oral presentations in plenary sessions.
- Articles on Eurocord-Ed activities have been published by several Consortium Partner organizations in their respective newsletters and circulated to their members in electronic and/or printed format.
- Eurocord-Ed has circulated 5 issues of its own Quarterly Accord e-newsletter.
- Articles have been published in journals destined for policy decision makers such as The Parliament Magazine and Public Service Review Science and Technology.

### **Exploitation activities:**

#### *Multiplication:*

Many exploitation activities emerged as a natural extension of dissemination. This has taken Eurocord-Ed beyond Europe to the international scene. This is reflected in the online platform's large geographic reach (115 countries).

Vocational actors from different sectors involved in the field have registered on the website and contributed documents to the platform's content, especially scientists, haematologists, transplant physicians and personnel working in cord blood banks. The biotechnology industry is also represented amongst the users of the Eurocord-Ed online platform.

#### *Mainstreaming:*

The Eurocord-Ed Consortium is available to all healthcare decision-makers in need of information and counsel related to all aspects of cord blood technology and clinical applications.

The Eurocord-Ed Consortium has made policy recommendations for cord blood banking and transplantation. The document is available on the online platform.

Eurocord-Ed co-organized a conference on cord blood that took place at the French Senate in 2010.

French legislation has recently been modified. Cord blood is now recognized as a therapeutic product instead of as surgical waste.

<http://www.legifrance.gouv.fr/affichCode.do?idSectionTA=LEGISCTA000006171033&cidTexte=LEGITEXT00006072665&dateTexte=20111012>

The Eurocord-Ed Consortium leader is invited to contribute to the national Ethics Committee discussions on cord blood.

Eurocord-Ed Consortium members have also been consulted in other European countries, in particular in Italy, Spain, Belgium and the UK.

Eurocord-Ed was a partner organization of the WBMT/WHO conference on haemopoietic stem cell transplantation in emerging countries, attended by healthcare decision makers at the international level.

As a direct result of its involvement in Eurocord-Ed, Biostór Ireland developed a proposal for the establishment of a Public Cord Bank in Ireland which was submitted to government. Following that they instigated a newspaper article in the Irish Times on the establishment of a National Public Cord Bank in Ireland which resulted in an interview and discussion of public Cord Blood banking over National Radio during the busy evening rush hour "Drive Time" radio programme. Subsequently, a news item on Public Cord Banking was filmed for the Irish language 6 o'clock TV News (TG4) and delivered in the Irish language.

## 2. Project Outcomes & Results

### **THE MAJOR ACHIEVEMENTS AND RESULTS**

Eurocord-Ed has produced an on-line distance-learning tool in the field of cord blood technology and clinical applications using a blended learning approach to training that includes live conferences and congresses as well as distance learning tools, including the Eurocord-Ed online platform.

Eurocord-Ed is a platform for comprehensive vocational training with content for the different groups of vocational actors involved in the field. The website offers a wealth of reliable, peer reviewed information presented according to a variety of formats including texts and publications, webcasted lectures, videos on techniques and standard operating procedures.

Online forums are organized regularly. They adopt a problem-solving approach to clinical and other questions submitted by users either in advance or in Real Time. A Eurocord-Ed expert is available during these two-hour sessions to respond to questions and give personal guidance.

The content of the Eurocord-Ed online platform is multilingual. The frame and written content are available in six languages. Twenty-one languages are represented online. The Consortium has also developed an English-Italian dictionary of cord blood terminology and will extend this to other languages in future. Eurocord-Ed members can access this tool within the REVERSO translation function that is available to Eurocord-Ed members via the website.

Self-assessment tools are also available in association with an increasing number of learning documents. E-validation certificates are also available to viewers who successfully complete a self-assessment.

To date, Eurocord-Ed has welcomed close to 8000 unique visitors from 115 countries.

### **FOR FINAL PRODUCTS/RESULTS, EXPLAIN THE IMPACT OF THE OUTCOMES AND RESULTS ON THE TARGET GROUPS**

Thanks to this LdV project, the field of cord blood technology and clinical applications has acquired a novel tool for interdisciplinary vocational training available at a time and place convenient to the user, with high-level content accessible in a large variety of different languages.

The field has also acquired a novel dictionary of cord blood terminology that reduces time and cost of translation between English and Italian; no similar tool existed in the field before this Eurocord-Ed project.

However, it would be unrealistic to state that the Eurocord-Ed platform is currently a 'final product'. In the minds of the Consortium members, the duration of the LdV contract has allowed to develop, design, test and revise the website so that it is better tailored to the needs of the vocational actors of our community. The project has furthered allowed the Consortium to generate high-level content in different formats. It has also provided the means to develop, test, implement and amend various options to address the challenge of learning in a multidisciplinary, multilingual scientific community. Self-assessment and e-validation tools have been tested in different formats and are now progressively being associated with new materials. But the Consortium will need to maintain its efforts to further the develop the tool and to nourish its content, in particular with learning algorithms and scenarios developed to respond to specific needs.

Eurocord-Ed offers the vocational user tools to improve their knowledge and skills and it provides them with opportunities to assess the level of newly acquired knowledge.

Further to its role as an online learning tool, the Eurocord-Ed platform has given great visibility to other Eurocord-Ed activities, including the annual World Cord Blood Congresses that provide content to the online platform while also attracting a growing audience from all over the world.

The Eurocord-Ed platform has also drawn the attention of vocational actors and healthcare decision makers in Europe and in other regions of the world. This, we believe, has brought valuable international visibility to European science and education in haematopoietic stem cell transplantation.

Although many of the Eurocord-Ed Consortium members are pioneers in the field of cord blood and so enjoy international visibility in their own right, the Consortium's dissemination and exploitation activities contributed to raise awareness on the part of many individuals and groups, including healthcare decision makers.

Eurocord-Ed contributes to raise awareness of the clinical importance of cord blood now and in the future and provides the vocational actor with tools to improve and assess their level of knowledge and skills.

Eurocord-Ed has recently implement a regular online rendezvous between Consortium leaders and vocational actors who seek expert guidance to solve difficult clinical or technological professional problems. This simple, concrete approach to learning undeniably impacts on professional behaviour and on the quality of patient care. However, at the broader level, it remains for Eurocord-Ed to develop and implement strategies to measure changes in professional behaviour, in function of newly acquired knowledge, and to measure the qualitative and quantitative outcome on cord blood banking, and cord blood transplantation and patient care. This represents a future challenge for the Consortium.

In a period of 3 years, Eurocord-Ed has progressively achieved the above while also welcoming close to 8000 visitors to the website.

**INDICATE WHERE RESULTS CAN BE FOUND IE WEBSITE DETAILS, CONTACT DETAILS**

The Eurocord-Ed website is available at [www.eurocord-ed.org](http://www.eurocord-ed.org)

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### **3. Partnerships**

#### **EUROPEAN ADDED VALUE**

The Eurocord-Ed Consortium has compiled a wealth of existing and newly developed educational material, in a variety of different format, and made them freely available on the website, at a time and place convenient for the users.

The Eurocord-Ed platform is also a platform for exchange and problem-solving among vocational actors in Real Time. Meet the Expert Forums are organized once every two weeks and users are invited to submit questions or difficult clinical cases for which they need expert guidance. This simple, direct approach nonetheless represents effective, rapid transfer of knowledge that impacts on professional efficacy and on the quality of patient care.

The website offers a multilingual environment and a variety of translation tools. Twenty-one different languages are represented on the website, and when a written document is presented in only one language, the viewer is invited to use the translation tools that have been incorporated into the website. These include a Google tool that allows translation at a click to English, French, Spanish, Italian and German. It also includes the REVERSO translation tool that allows the user to insert for translation any text of their own choosing. Furthermore, Eurocord-Ed has developed an English-Italian dictionary of technical terms used in the setting of cord blood. This novel tool will be progressively extended to other languages.

#### **WORKING TOGETHER IN A EUROPEAN PARTNERSHIP**

A pan-European approach is required to build a knowledge base and a critical mass of researchers in this increasingly important multidisciplinary field. This is impossible at the regional or national level. Expertise in the field of Cord Blood transplant and technology is not the resource of any one European country. The major figures work throughout Europe and the rest of the globe. In Europe, the Netherlands, Germany, Spain, Italy, France, Greece, Belgium, the UK, Hungary and other countries are all home to world leaders in this domain

#### **THE BENEFITS ESTABLISHED WITH GROUPS OUTSIDE THE DIRECT PROJECT/CONSORTIUM IE TARGET USERS**

Eurocord-Ed has currently welcomed close to 8000 visitors. Over 1500 vocational actors have registered to receive regular updates on Eurocord-Ed progress and tools.

A number of academic organizations and institutions involved in the field of cord blood have joined forces with the Consortium. They provide documents for the website and contribute to discussions on policy recommendations. These include a number of international organizations from the United States, South America and Asia. It also includes the World Network for Blood and Marrow Transplantation and the World Donor Marrow Association.

Eurocord-Ed has taken steps to raise awareness of European healthcare decision makers. The Consortium has drawn attention to the clinical importance and future perspectives of cord blood and to the barriers that currently hinder its future development in Europe. The Consortium has circulated information in various written and electronic formats, and produced a document of Policy Recommendations.

Eurocord-Ed representatives have been elicited for advice by healthcare decision makers in several countries. For example, in France, a proposal for a new legislation was filed at the French Senate by a group of 90 senators. This bill was voted and has modified the legal status of the umbilical cord from that of 'waste product' to one of therapeutic product. The Eurocord-Ed Coordinator was cited in this proposal as a source of scientific information and advice. She is also invited to participate in the French National ethics Committee discussions on cord blood.

# Plans for the Future

## **SHORT-TERM:**

Eurocord-Ed has achieved the milestones and produced the deliverables outlined in its original application. However, in the minds of the Consortium, work has just begun. Now that the cord blood community has a functional online vocational training tool that is recognized for its value and used by thousands of vocational actors from 115 different countries, it remains for the Consortium to continue to improve the online environment, to refine current tools and documents and to develop new ones in order to better respond to current and new educational needs.

In the short term, Eurocord-Ed plans to:

### **A. Continue to nourish the website:**

1. Although time-consuming, this does not present a major difficulty in view of the fact that many of the members of the Consortium are major international actors in the field, and in view of the fact that members of the cord blood community outside of the Consortium submit documents for the website. Also, the already scheduled and partially financially secure World Cord Blood Congresses 2012 and 2013 will provide direct content for the website.
2. Most of the webcasted lectures available on the website are produced in English. Therefore, plans also include the development of multilingual subtitles to accompany and assist in the comprehension of these webcast. Plans also include filming of private Eurocord-Ed lectures in French, Spanish, Italian and Portuguese.
3. Self-assessment and e-validation tools have been recently implemented on the website. They will be extended to all Eurocord-Ed documents.
4. An expert in pedagogics will work to help to design educational algorithms and scenarios for specific audiences.

### **B. Continue dissemination and multiplication activities:**

1. Several different vocational communities involved in cord blood currently use the website as an educational resource. However, Eurocord-Ed wished to extend this reach to effectively include other vocational actors currently insufficiently represented amongst Eurocord-Ed users. These notably include midwives and data managers.
2. Eurocord-Ed also hopes to build an increasingly international audience.
3. Several Eurocord-Ed live activities are already planned outside of Europe (in Asia and South America) in 2013. These will also contribute to nourish the website.

### **C. Mainstreaming**

1. The Eurocord-Ed Consortium intends to continue to circulate its recent Policy Recommendations document and to elicit appointments with healthcare decision makers throughout the European Union and its associated states.
2. The policy document is currently being posted on the homepage of the Eurocord-Ed website where it will be associated with a survey enabling vocational actors to express their support of the Consortium's recommendations for healthcare decision makers.

## **MID-TERM:**

### **A. Financial self-sustainment**

The financial self-sustainment of Eurocord-Ed activities has been secured for the short term thanks to strategic decisions made during the life of the LdV project to reduce costs and efforts to secure educational grants from the pharmaceutical and biotechnology companies for live and e-learning Eurocord-Ed projects. These efforts will need to be extended over time. Furthermore, as the Eurocord-Ed portal and tools develop, the Consortium may decide to commercialize some of them.

**B. CME Accreditation and Quality Control for E-Learning:**

European haematologists and the Europe's vocational community on cord blood have been unable to identify an appropriate pan-European system for accreditation and quality control of continuing e-educational in their field. Although a pan-European system for the accreditation and quality control of live meetings does exist, it has not been extended to e-learning, despite the increasing importance of the contribution of this media to vocational education in the field. Some European countries have a national accreditation system that is applicable to the e-learning setting, but they generally function independently from their neighbours and according to different methodologies; it is therefore administratively and financially difficult to submit individual applications for accreditation to each of these systems for all Eurocord-Ed e-learning documents.

Eurocord-Ed is therefore considering developing a system for the accreditation and quality control of e-learning in the field, based on the system already implemented by EHA at the pan-European level for live meetings. This project would implicate time, effort and coordinated strategic planning between the different major academic organizations working in the field. It would therefore be the object of a future application to the European Commission's Leonardo da Vinci programme.

# Eurocord-Ed Phase II Organizational Chart: Groups 1-10

**Management Group – ONE:**  
Scientific and Administrative Governance Chair: E. Gluckman and Group Chairs

**Development in the field of Umbilical Cord Blood biology, banking and transplantation:**  
Developing and validating vocational training in the different fields related to cord blood, in a user-friendly, interactive setting.

**Group TWO:**  
Cord blood banking

**Group THREE**  
Research and technology

**Group FOUR**  
Cord blood transplant

**Group FIVE**  
ICT management of website



**Group SIX:**  
**Quality, regulatory and ethical issues:** Implementing quality assurance; improving understanding of ethical and regulatory issues; facilitating professional co-operation and mobility



**Group SEVEN & EIGHT:**  
**Dissemination of above knowledge, skills and qualifications:** Raising awareness and disseminating results and contributing to improve, harmonize and pool knowledge and skills throughout the European Union and its Associated States. (Electronic and Physical/Print/Oral)



**Group NINE & TEN:**  
**Exploitation:** Transferring results to appropriate decision-makers in regulated local, regional, national and European systems. Convincing individual users to regularly use EUROCORD-ED lifelong training and to measure and validate newly acquired knowledge and skills.(Electronic and Physical/Print/Oral)

## 4. Contribution to EU policies

### **SUMMARY OF HOW THIS PROJECT CONTRIBUTES TO THE KEY EU POLICIES OBJECTIVES AND PRIORITIES (LISBON, BOLOGNA, BERGEN ETC)**

Eurocord-Ed contributes to several EU policies and objectives. These include the following Lisbon Education and Training Progress Indicators: Open Learning Environment and Mobility. The Eurocord-Ed website is an online curriculum in cord blood transplant and technology freely accessible to anyone with an interest in this exciting and evolving field of scientific research with an important potential for multiple therapeutic applications. The website can serve as a model for other sectors wanting to develop a comprehensive online training tool. The content can be accessed at a time and place convenient for the user. It can also be used for vocational training in a classroom or conference setting. Eurocord-Ed is also a tool for European mobility and harmonisation actively contributing to raising and harmonising levels of competency throughout Europe.

Eurocord-Ed actively encourages specialists in the field of cord blood transplant and technology to continuously update and compliment their knowledge, competence and skill all along their career path. The consortium believes that this is not only important for employability and economic prosperity but that it also is important for personal fulfilment. This is accomplished by regularly updating the Eurocord-Ed website content and making sure that all of the information included on the platform is valuable and pertinent. The website offers opportunities for both passive and active learning. Email alerts are sent to all registered users informing them of new content. Users are encouraged to provide feedback to the Eurocord-Ed consortium. This feed back is then presented to the relevant members of the consortium so that the website reflects the needs of its users. In the second half of the project, the consortium will continue to develop the self-assessment aspects of the platform and examine options for continuous medical education accreditation.

Although Eurocord-Ed is essentially a tool for vocational training, it is compatible with many of the Bologna objectives in particular employability, international competitiveness, mobility schemes, and quality assurance. The international content of the Eurocord-Ed platform has been developed for a variety of target groups and can therefore be presented in a classroom setting to both undergraduate and graduate students thus promoting a European dimension to higher learning.

With regards to the Bergen objectives, Eurocord-Ed promotes the implementation of standards and guidelines for quality assurance and creates opportunities for flexible learning paths in higher education. These objectives are being reached through the consorted efforts of the Eurocord-Ed consortium.

### **CONTRIBUTES TO THE KEY EU POLICIES OBJECTIVES AND PRIORITIES ESTABLISHED IN THE FOLLOWING:**

Directive 2004/23/EC of the European Parliament and of the Council of 31 March 2004 on setting standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissues and cells

Commission Directive 2006/17/EC, of 8 February 2006, implementing Directive 2004/23/EC of the European Parliament and of the Council as regards certain technical requirements for the donation, procurement and testing of human tissues and cells

COMMISSION DIRECTIVE 2006/86/EC, of 24 October 2006, implementing Directive 2004/23/EC of the European Parliament and of the Council as regards traceability requirements, notification of serious adverse reactions and events and certain technical requirements for the coding, processing, preservation, storage and distribution of human tissues and cells