



Grant Agreement no. 287596

d-LIVER

ICT-enabled, cellular artificial liver system incorporating personalized patient management and support

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D9.1: Initial Dissemination and Training Plan

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PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including Commission Services)	
CO	Confidential, only for members of the consortium (including Commission Services)	

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Table of Contents

1. Introduction	4
2. Dissemination Strategy	4
2.1. Exploitation Committee	6
3. Dissemination Methodologies	6
3.1. Journals / Conferences	6
3.2. Project Workshops	7
3.3. Project logo	7
3.4. Project Outline Slide	7
3.5. Project flyer.....	8
3.6. Project website	8
3.7. Video.....	10
3.8. Templates	10
3.9. Project clip-art.....	10
3.10. Press releases	11
4. Promotion via Patient Support Groups	11
5. Networking	11
6. Training Strategy	11
6.1. Internal training.....	12
6.2. External training.....	12
7. Conclusions	13

1. Introduction

The d-LIVER dissemination strategy is based on the objectives of the project, the stakeholders within the consortium and the requirement to significantly impact the market. The technological advances throughout the project need to be disseminated to the scientific community while the benefits of the technology need to be promoted to the end users and patients, as well as potential collaborators for future product development of liver support systems and remote patient management solutions for all applications.

In deciding on a dissemination strategy for d-LIVER, all these factors have been taken into account. As a result, the dissemination strategy comprises a matrix of three distinct groupings:

1. Dissemination methodologies targeted at the specific audiences (scientific, academic, general public).
2. Promotion through various patient support groups (e.g. LIVErNORTH in the UK, Deutsche Leberstiftung, Deutsche Leberhilfe, or Leber-Liga zur Förderung und Unterstützung chronisch Lebererkrankter in Germany), EC concertation activities and the European Technology Platforms, such as those on Smart Systems Integration (EPoSS) and Nanomedicine, and national technology platforms, such as eVIA (Spanish Technology Platform of Technologies for Health, Welfare and Social Cohesion) in Spain.
3. Networking with user groups, conference and trade show organisers, etc.

To effect this strategy, d-LIVER will engage stakeholders in a variety of ways including:

- Conferences and workshops targeted at specific stakeholder groups
- Scientific publications
- General publications targeted at specific stakeholder groups
- Project website
- Flyers and other project literature

From its dissemination activities, d-LIVER seeks to develop a distinctive “corporate” image, including a logo and presentation templates, which are easily identifiable by all interested stakeholders. The particular nature of the project and its natural evolution shall be reflected in this strategy and changes to some of the activities set out in this document may be necessary during the lifetime of the project. The project will endeavour to be both effective and efficient in its dissemination activities. This will involve an on-going review of the methods employed and changes and updates as necessary.

2. Dissemination Strategy

To set the scene for the d-LIVER dissemination strategy, it is important to understand the project objectives and some of the issues facing the healthcare industry and potential impact on the community. The liver is a complex organ with various vital functions in synthesis, detoxification and regulation; its failure is life-threatening and the only curative treatment is transplantation. Whilst awaiting transplantation, or after liver resection, patients need to be supported with detoxification systems which, currently mainly based on filtration, do not support metabolic liver function. This can only be provided by living cells. Thus, development of ICT-enabled bio-artificial liver support systems with associated remote monitoring to assist in the treatment and management of liver patients in care settings extending from the hospital to the home is essential.

d-LIVER targets sensor-based monitoring of patient health status at home, concentrating on continuous monitoring of physiological parameters and discrete measurement of a defined set of

biochemical species. d-LIVER also targets remote monitoring and control of the bio-artificial liver and communication with patient sensor networks and hospital information systems. Systems will be capable of remote, secure communication of the status of both the patient and the bio-artificial liver to central clinical services such that they can schedule swift and beneficial treatment and remedial actions. In this way d-LIVER will provide fundamental advances in liver support by reducing hospitalisation costs while enhancing quality of care and, at the same time, reinforcing European leadership in Personal Health Systems.

Basic research will be disseminated through the normal scientific and academic route of peer reviewed publications. Within d-LIVER, it is expected that the work on the sensors, bio-artificial liver (BAL), pancreatic progenitor cells and Liver Patient Management System (LPMS) will provide the greatest majority of these publications. It is also expected that the project will promote itself through trade magazines and journals, conferences, trade shows and networking events. Aspects of these are discussed later in the document.

Dissemination to the general public is multifaceted. This comprises raising the general awareness of the healthcare issues, the progress being made in the project and the vast potential of the technology for everyone. To achieve this, a number of dissemination routes have been identified:

- d-LIVER website
- Project flyer
- Multilingual press releases
- Attendance at national conferences
- General press coverage – TV, radio, national and local press

The attainment of the dissemination strategy can be achieved through the establishment of links with distinct but overlapping target groups and end users, such as trade associations, patient support groups, policy makers, healthcare providers, industrial and research entities. The methods through which d-LIVER can reach these target groups involves varying approaches that can be grouped as either clustering activities with other on-going actions/projects, or through conference activity, either at periodic venues or specific d-LIVER organised and sponsored events.

Within the d-LIVER consortium, there are a number of commercial partners focused on communications and healthcare, and also two clinical centres specialised in liver disease and liver transplant. This presents a great opportunity to leverage their global reach and networking contacts in terms of dissemination and exploitation. In particular, AT4 wireless is an active member of the Continua Health Alliance, which is dedicated to establishing a system of interoperable personal connected health solutions. The clinical partners have links with major hepatology organisations such as EASL (European Association for the Study of the Liver), BASL (British Association for the Study of the Liver), British Liver Trust, BundesArbeitsGemeinschaft Leber (Germany), and AASLD (American Association for the Study of the Liver), which will be used for disseminating the project findings. Representatives of these organisations will also be invited to networking events with the objective to give feedback to d-LIVER related research needs and commercial opportunities.

In addition, various partners are engaged in on-going healthcare projects e.g. sensor systems for rapid detection of infectious organisms (UNEW), sensor systems for diagnosis and monitoring of coeliac disease (URV), the ALICE project, an AAL initiative focused on the development and integration of a set of ICT based services into the existing TV set, allowing elderly people to enjoy experiences of communication and social interaction based on ICT (AT4 wireless). Many dissemination activities targeted at industry will be co-ordinated through 4M2C with input from the other partners as necessary.

2.1. Exploitation Committee

An Exploitation Committee will be setup to monitor these aspects, comprised of a relevant subset of d-LIVER partners. Consideration will also be given to appointing an external expert to this committee at a later stage of the project, if deemed relevant. The committee will review key performance indicators and give feedback on the commercial opportunities and impact success of the project. It will provide reports to the Steering Committee at least annually. Its remit will cover:

- Commercialisation
- Standards
- Intellectual Property
- Dissemination
- Knowledge Management and Training

3. Dissemination Methodologies

3.1. Journals / Conferences

Raising awareness of the d-LIVER project and its results, to relevant stakeholders is an important feature of the project. The strong multidisciplinary character in d-LIVER provides a wealth of channels for distribution of relevant information.

Partners have been successful in the past in publishing in top journals and conferences in their areas of research, and it is expected that the same will happen in the context of this work. In particular:

- Results related to sensors will be presented at relevant conferences and workshops such as: Eurosensors; Biosensors; Transducers; COMS etc. Similarly, this work will be published in top journals such as: Analytical Chemistry, Biosensors & Bioelectronics, Electrochemistry Communications etc.
- Results related to microfluidic developments will be presented at relevant conferences and workshops such as: Lab-on-a-Chip World Congress, Micro Total Analysis Systems (μ TAS) etc. Similarly, this work will be published in top journals such as Lab-on-a-Chip.
- Results related to the bio-artificial liver support unit will be presented at relevant conferences and workshops such as: International Conference of the Engineering in Medicine and Biology Society (EMBS), International Research Conference "Liver Cancer", International Liver Congress, etc. Similarly, this work will be published in top journals such as: Hepatology, Liver Transplantation, Journal of Hepatology etc.
- Results related to the Liver Patient Management System (LPMS) will be presented at relevant conferences and workshops such as: Information Technology and Applications in Biomedicine (ITAB); Conference of the Society of Medical Decision Making etc. Similarly, this work will be published in top journals such as: Journal of Medical Internet Research, Journal of Biomedical Informatics etc.
- Results related to the pancreatic progenitor cells will be presented at relevant conferences and workshops such as: European Association for the Study of the Liver, German Association of the Study of the Liver, American Association for the Study of the Liver etc. Similarly, this work will be published in top journals such as: Transplantation, Tissue Engineering, Biochemistry and Bioengineering, Nature Medicine, Journal of Cell Science, Toxicology etc.

- Finally, results and information related to the overall project application will be presented at application-specific conferences and international symposia for personalised healthcare such as pHealth, Personalized Medicine World Conference etc. Where relevant, conference sessions will also be proposed at such international symposia in a later phase of the project. Similarly, this work will be published in top journals.

The majority of the conferences mentioned above are extremely competitive, with acceptance rates below 30% and in specific cases below 20%. Technical papers that are accepted for publication to conferences are accompanied by a technical presentation outlining the core of the proposed solution, the improvement over the state-of-the-art, and a solid evaluation, demonstrating the validity of the proposed ideas and technologies.

3.2. Project Workshops

Towards the end of the project, a series of industrial workshops will be held where the whole range of project activities will be presented and in which organisations related to the healthcare industry and potential commercial end users will be invited and given briefings on the technologies developed. The first workshop will be held around April 2015, with at least one further workshop before the end of the project.

3.3. Project logo

Although not a dissemination mechanism in its own right, the logo of the d-LIVER project (shown below) is very important as it gives the project an identity. The logo is used on all d-LIVER documentation and at all dissemination events. The logo of the project was designed during the first months of the project. An animated version has also been produced for use on the project website and in PowerPoint presentations.



Figure 1: d-LIVER logo.

3.4. Project Outline Slide

A project Outline Slide in PowerPoint, Figure 2, was produced as required at the beginning of the project and submitted to the Project Officer. This is mainly to be used for dissemination by the EC and for inclusion on their website. But it will also be used by partners as a short introductory slide to presentations, as necessary.

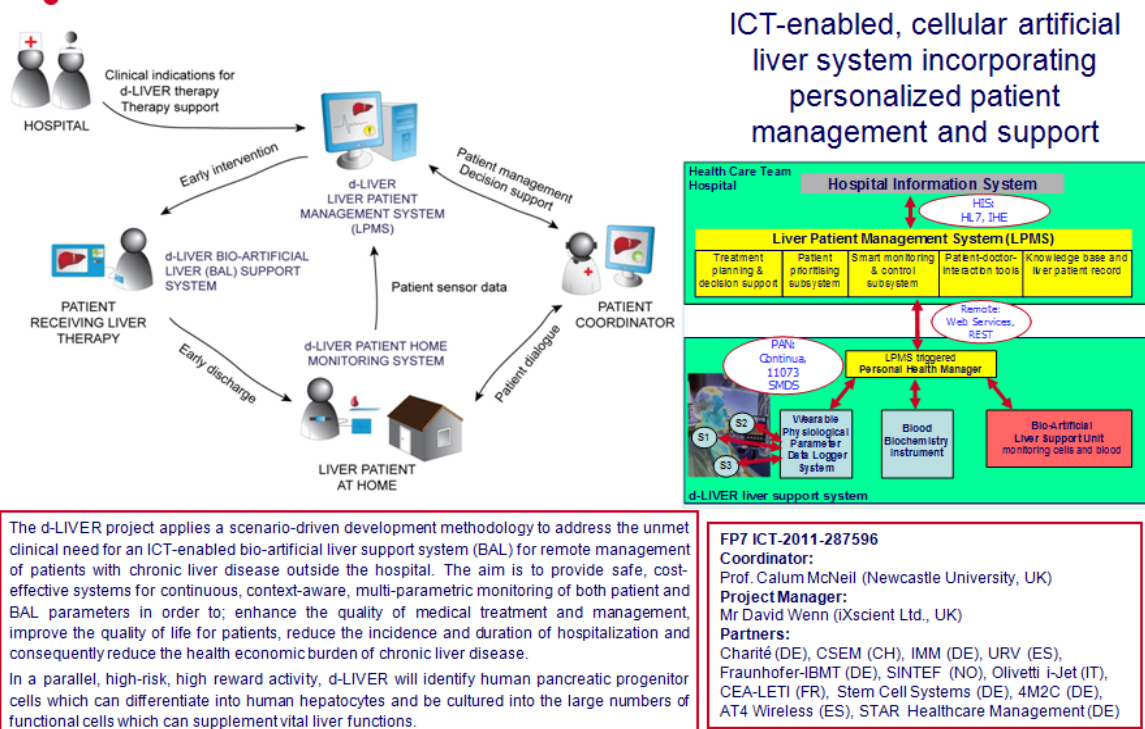


Figure 2: d-LIVER Project Outline Slide.

3.5. Project flyer

A flyer is currently being designed, giving an overview of the project including the objectives and the consortium partners. Printed copies of the flyer will be distributed among the partners to be used for dissemination activities. It will also be available for download from the project website.

3.6. Project website

An initial version of the d-LIVER website was produced and placed on line during the first 3 months of the project (www.d-liver.eu). The functionality is currently being extended and the website will be continuously updated throughout the project. It has a public area where public information on the project, its achievements, the partners, as well as important news on events and meetings are posted. In addition, it has a private section for the partners, controlled by a user name and password, where confidential information can be deposited and which allows the partners to update their profile and add further information to the public area. In future, the website will also adopt the Web Content Accessibility Guidelines (WCAG)[®]. WCAG offers documentation and guidelines to make web content accessible to people with disabilities.

The project website provides an excellent place to disseminate information. Currently there are the following dissemination routes on the website.

- Outline and objectives of the project
- Project news
- Project partners
- Project flyer – downloadable

- Public deliverables
- List of dissemination events past and future
- List of journal publications and conference presentations
- Links to similar technology developments
- Press releases

d-LIVER Integrating Project:
Developing an "ICT-enabled, cellular artificial liver system incorporating personalized patient management and support"

Home The Project The Consortium For Patients Downloads Events News Links & References Contact & Legal Information

Home



The d-LIVER project is funded by the European Union's 7th Framework Programme in response to FP7 ICT Call Objective ICT-2011.5.1: Personal Health Systems. It addresses the need for an ICT-enabled bio-artificial liver support system (BAL) to facilitate detoxification as remote transient therapy at the point of need, offering continuous care from hospital to home settings.

The overall goal of the project is to provide safe and cost-effective systems for continuous, context-aware, multi-parametric monitoring of both patient and BAL system parameters in order to: enhance the quality of medical treatment and management; improve the quality of life for patients; reduce the incidence and duration of hospitalization and consequently reduce the health economic burden of chronic liver disease. d-LIVER will facilitate improved treatment whilst enabling patients to spend more time at home under constant, albeit remote, medical supervision.

This website is intended to give an overview of the project, its intentions, benefits and potential outcomes. This site addresses all relevant stakeholders, such as researchers, clinicians, health industry, funding bodies, regulatory organisations, healthcare providers, user groups and patients. Most of the website is in English language only, however, as we have clinicians and patients mainly involved from the UK and Germany, a page with patient information is also provided in German.

Anyone interested in the research carried out by the d-LIVER project should feel free to contact us, ask questions, make recommendations and request to be put on our mailing list for event invitations and news publications. Please e-mail us (with your own contact information) at: info@dliver.eu.

We appreciate collaboration with other projects, clinics and healthcare industry! Also, we are happy to cross-link our website with other relevant and non-commercial websites. Additionally, we can accommodate your news and event announcements in our event and news sections.

Happy reading!

Recent Posts

- [Call for Papers: eHealth 2012 Conference, Porto, Portugal, June 26-28, 2012](#)
- [Fraunhofer IZMT Press Information d-LIVER \(Deutsch/German\)](#)
- [Med-e-Tel – the International eHealth, Telemedicine and Health ICT Forum, April 18-20, 2012](#)
- [d-LIVER Kick-off Meeting at Newcastle University](#)
- [d-LIVER Project Launched](#)

Posts by Categories

Select Category

COOPERATION

The d-LIVER project is supported by the European Union's 7th Framework Programme under grant agreement no. 287508 (Link to Cordis)

European Commission H2020 Research area: Personal Health Systems (Website "ICT for better healthcare in Europe")

Figure 3: Screenshot of d-LIVER website.

3.7. Video

Video clips of certain developments (e.g. showing the blood biochemistry instrument and cartridge in operation) will be collected throughout the project for use on the website. Towards the end of the project, consideration will be given to producing a professional quality video for dissemination purposes possibly including live footage or animated sequences with voiceover.

3.8. Templates

The project has designed a number of templates following a particular style. A screen-shot of the official PowerPoint presentation template to be used in all dissemination events is shown in Figure 4. This will provide a uniform project image.



Figure 4: Screenshot of d-LIVER PowerPoint presentation template.

3.9. Project clip-art

A clip-art collection for the project scenarios has been produced. This will be used to present the application scenarios of the project in an effective and consistent manner for both external (public) presentation in various media, and for illustration and internal discussion of application scenarios across Workpackages. For examples of this clip-art, see the project overview illustration in Figure 2, d-LIVER Project Outline Slide.

3.10. Press releases

A formal press release for the launch of the project (and its website) is about to be finalised. This will be distributed to a list of more than 300 relevant press contacts and added to the project website. In addition it will be sent to all partners and can be used on their institute websites. Further press releases are planned to announce important achievements in the d-LIVER project.

Fraunhofer-IBMT has already published a press release in German through its institutional channels.

4. Promotion via Patient Support Groups

The aims and outcomes of the project will be promoted to liver patients through patient support groups such as LIVERnORTH (UK) and similar organisations around Europe. UNEW will organise the workshops mentioned above and will be able to ensure attendance of the relevant stakeholders. At these workshops, liver patients and their families will be given briefings and hands-on demonstrations of the technologies developed.

5. Networking

Use will be made of contacts through commercial partners 4M2C, OIJ, AT4, SCS and STAR, and this will be linked to future exploitation activities. Commercial contacts can also be established through:

- Demonstrations, booths or specialized symposia / workshops at selected conferences, as previously mentioned
- Organizing industrial workshops about the project, inviting selected EU parties and companies (as part of exploitation efforts)
- Direct approach to experts and companies active in the field (to be based on work to be performed in the exploitation part of d-LIVER) such as:
 - Technology providers
 - End-users and companies in other relevant fields

Contact will also be made with other relevant projects and European Technology Platforms (ETPs), such as the European Technology Platforms on Smart Systems Integration (EPoSS) and Nanomedicine, during the course of d-LIVER. Networking events organised or hosted by the European Commission, such as concertation meetings and workshops will be actively supported and exploited to make new contacts and assess opportunities for collaboration.

Other relevant networking activity will be to present the project results to industry organisations, such as Continua Health Alliance, as a means of disseminating the d-LIVER outcomes among some of the key players in the eHealth sector.

6. Training Strategy

To guarantee highest efficiency and best results in implementing the d-LIVER workplan, researchers and industrial partners involved in d-LIVER need an in-depth knowledge of relevant technologies and capabilities of other partners – to achieve this, an internal training plan will be adopted. Additionally, the d-LIVER consortium considers it of utmost importance to provide for the training of healthcare professionals and patient groups.

The training and education activities can be stratified into two areas:

- Training and education of researchers involved in the d-LIVER project (internal training)
- Training and education of relevant healthcare professionals and patients (external training)

6.1. Internal training

Given the diverse range of technologies and know-how that will be exploited in d-LIVER, training activities aimed at (a) providing new skills to researchers and (b) updating researcher skills will be organised. Internal workshops can also be used as forums for standardisation of techniques and for ‘ring-testing’ of products developed within the project duration.

Training will start with the identification of training needs, specific individuals/groups of individuals able to participate, the additional funding sources available to assist, and support for those individuals with restrictions on movement (disability, family commitments etc.). Many of the consortium participants are already engaged in training for researchers or industrialists. The initial phase will include an audit of current training provision against technical discipline, level of education (qualification/certification), entry requirements, method of delivery etc. Integration of existing partner training will be undertaken which may involve movement of trainers to other countries to deliver courses where none currently exist, the commercially agreed transfer of course material between partners, and the consideration of new e-learning approaches on identified topics, where funding opportunities exist.

As the budget available for internal trainings and exchanges is very limited, it is suggested to organise tutorials or workshops in conjunction with WP meetings and especially when cross-WP meetings take place. Short tutorials could present the hosting organisation and its work or they could present specific project related topics in more depth. More intensive workshops may precede WP meetings and thus prepare and discuss the basic knowledge before participants start in-depth discussions at their WP meetings. A short report from such tutorials and workshops is to be added to the meeting notes. The requirements for this activity have been added to the project handbook and partners have been made aware of this.

Due to the requisite for the progression of individual areas of expertise being the convergence of technologies, the need for researchers with a multi-disciplinarian background is of paramount importance. The structure of the d-LIVER IP will facilitate the exchange of researchers and students, not only within their field of expertise, but also to institutes and industries outside their field of expertise. The procedures for exchange will be agreed, additional funding opportunities identified and exchange opportunities promoted internally.

6.2. External training

External training will comprise two parts – training of the end users on the system and motivational training of the patient being monitored. End users including the doctors and nurses who will use the system and oversee the patient detoxification sessions will be trained how to use the bio-artificial liver support unit and how to interact with the LPMS in order to review patient status and make changes to therapeutic plans. During the validation tests of the system, patients will be trained how to operate the wearable sensors and how to take blood biochemistry measurements using the instrument platform. They will also be taught to use the patient-specific aspects of the on-line LPMS such as cognitive testing and wellness questionnaires.

An additional set of workshops aimed at healthcare professionals will be organised and held at different locations so as to achieve maximum dialogue with the ‘actual’ end-users of the technology. The instigation of a large workshop targeting liver specialists towards the end of the project will be one of the major deliverables of d-LIVER and will set a precedent for the implementation of the protocols for liver patient monitoring and management developed within d-LIVER. The strategy for external training will be developed in greater detail after month 24.

7. Conclusions

This document outlines the initial dissemination plans and opportunities for d-LIVER. It is not intended that all details should be fixed at this early stage in the project, rather a framework has been set out and the partners will respond to dissemination opportunities which emerge. The area of Personal Health Systems is very exciting with a lot of interest worldwide at the moment and it is clear that there will be extensive further opportunities for dissemination throughout the course of the project.