



Foundation – Medical Research Institutes

# Activities Report 2010-2011

**Pr. Roland Asmar**

Chairman

Date:

Signature:

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Foundation – Medical Research Institute

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## Summary

Research, especially in the Health area, represents a major issue with respect to the economic and social development of a country and even a region. [All actors in the field meet particular interest in that development:](#) patients, universities, hospitals, practitioners, researchers and industries. In this regard, the medical research progressing deserves much attention.

The medical research is still in an embryonic state in the Middle East region. However, it may be observed a true will of health authorities and academic institutions to effectively develop medical research.

The Foundation - Medical Research Institutes established in 2009-2010 as public utility non-for-profit organization in Geneva (Switzerland), and implemented officially in the Middle East in 2010-2011 designed its project entitled [“Development of Academic Medical Research in the Middle East”](#) with academic and interuniversity prospects, to bring a significant contribution to the development of medical research and continuing medical education in the Middle-East region.

This “Activities Report” reports [the essential activities undertaken by the Foundation in 2010-2011](#); they are classified according to the initial plan of the project described in the Foundation brochure, namely: administration, academic education, research units, research projects, public health and others.

Overall, the activities undertaken during this period are very satisfactory and meet the original goals. Particular, it should be noted that the academic teaching of medical research undertaken by the Foundation in collaboration with the Lebanese University led to [graduate the first class of medical researchers in the Middle East](#). The future perspectives for 2012-2013 are also produced.

# The Foundation-Medical Research Institutes

## Main Issues

### The Foundation - Medical Research Institutes (F-MRI): Governance\*

The Foundation - Medical Research Institutes (F-MRI, Geneva Switzerland), is a [public utility non-for-profit organization registered in Geneva, regulated by the Swiss law](#). This organization chaired by its President and founder, Prof Roland Asmar has been established in 2009 and officially recognised in 2010. It is registered with the trade and placed under the control of the supervisory authority of the Federal Department of Home Affairs in Bern, Switzerland.

**Headquarter:** The Foundation's headquarters location is: Place Saint Gervais 1, Po Box 2049, 1211 Geneva 1, Switzerland. Tel: +41 22 909 89 00. Fax: +41 22 909 89 39.  
Email: [contact@f-mri.org](mailto:contact@f-mri.org) ; Web: [www.f-mri.org](http://www.f-mri.org)

**Duration:** The duration of the Foundation is unlimited.

**Resources:** The main resources of the foundation are:

- Allowances, donation and bequests,
- Any other source authorized by law, including private donors and public institutions,
- Products of its shares as defined in the aims of the foundation.

**Organs of the Foundation:** The main bodies of the Foundation are:

- The Board of Trustees,
- The auditors,
- Scientific and other resource Committees.

\* *Details on the F-MRI governance are provided on the website: [www.f-mri.org](http://www.f-mri.org)*

### Main initial project\*:

The initial project of the Foundation entitled:

« [Development of Academic Medical Research in the Middle-East](#) »

has been described in details in a specific brochure. Briefly, the main objective of the project is to develop the research activities in medical science in the Mediterranean / Middle-East region. This has been decided after permanent collaboration with various local and international entities: governments, institutions, and universities in order to fill a gap and meet the demand of the involved parties.

**Structure of the project:** The project has been planned as the progressive [creation in the participant country of a local F-MRI entity](#). Each of the local entities is supervised by scientific council and a patronage committee which includes national and international personalities.

**Functioning:** All respective local F-MRI subsidiaries will develop following a single common design their proper activities according to the specific needs and progressively in four steps:

- Education on medical research
- Creation of clinical research units (CRU), initiation of medical research projects and a research network.
- Communication, Editorial and publishing
- Other issues: public health research projects

\* *Details of the project are described in specific downloadable brochure from the website*

## **Establishing of Lebanese local F-MRI Entity**

In order to operate in Lebanon, the Foundation has established a local independent legal office as a public utility, non-for-profit organization registered in Beirut and regulated by the Lebanese law. This entity chaired by Prof Roland Asmar has been established in 2010 and officially recognised in 2011. It is registered under the control of the supervisory authority of the Ministry of Interior, Lebanon.

**Headquarters:** The Foundation's Lebanese headquarter is located at: Achrafieh, District Hôtel Dieu 64, street n°1, Olivetti Bldg. Beirut Lebanon. Tel: +961 1 424 027. Fax: +961 1 424 028.

An additional academic office of the Foundation has been also opened at the Faculty of Medicine of the Lebanese University, located at Hadath, Beirut Lebanon. Tel / fax: +961 5 470924. This office has been established after the signature of an agreement between the two entities to develop the university education of Medical research (see specific chapter hereafter).

## **Creating & Developing a Professional website**

A professional website has been registered, created and developed both in English and French languages. It includes the followings:

- Report of the Foundation governance and objectives
- Description of the Foundation mission with the main project
- Education section
- Research section
- Publications with downloadable documents
- Specific restricted student's access pages with downloadable courses

## EDUCATION IN MEDICAL RESEARCH

Physician interested in becoming researcher or study investigator must have been trained on medical research principles and methods. He or she will be assisted in this activity by persons belonging also to the medical sphere: the clinical research assistants (CRA) and clinical research technicians (CRT) the role of whom is to follow up a study, to ensure adequate application of good clinical practice, and to verify the quality of data collected in the study.

Since academic education of medical research is almost inexistent in the Middle-East, the Foundation decided to organize this specific education which constitutes the first academic medical research education ever conducted in the region. Two levels of education have been determined as to meet this prerequisite to any involvement in a research project:

- [A university \(UD\) diploma](#) proposed to post-doctorate students, the objective of which is to introduce future investigators in research fundamentals and related regulatory and technical requirements.
- [A professional education recognized by a university certificate](#), proposed to students having achieved their baccalaureate + three years of higher education, who are interested in becoming clinical research assistant (CRA) or clinical research technician (CRT).

These two university educations of medical research have been initiated at the Lebanese University thanks to the signature of an official collaboration agreement between the Foundation and the Lebanese university (see specific chapter hereafter). These education diploma and certificate welcomed students from various Lebanese universities (see appendixes 1, 2, 3 & 4).

### **The University Diploma “Principles of Medical Research”**

The organization of this university diploma involves a collaborative participation of local and regional universities, with the participation of experts from Beirut (Lebanon) but also and principally from Toulouse, Nancy and Paris VI Universities (France) and as well as Cambridge university (United Kingdom).

Details on the university diploma: objectives, required qualities, organisation, training, final exam, etc can be obtained from the website. Briefly, the objective of the diploma is to provide participants with full knowledge of those basic rules and requirements necessary to initiate, implement and achieve any medical research project in full accordance with international regulation and guidelines. The diploma is organised in collaboration with the public Lebanese university therefore with a very limited cost for the participant. Similarly to the European guidelines, this instruction implies 112 hours of academic courses, 32 hours of workshops, a professional training and a final exam with an anonymous written test and a training evaluation. In order to succeed the university diploma, participant has to obtain >12/20 on the written exam and a validation of the training. Because of its professional aspects, this diploma provides professional opportunities and interesting career plans in the research area.

[Since its establishment in 2010, 2 academic years took place with 2 distinct classes:](#)

- Academic year 2010-2011: Class “Galien” included 35 participants

<b>NAME</b>	<b>DEGREE</b>	<b>UNIVERSITY</b>
Abdo Toni	M.D.	UL
Abou Farah Moussa	M.D.	Moscow / Equivalence
Adhami Atika	M.D.	Paris VII
Al Natour Souhaila	Pharmacy	LAU
Asmar Rayane	Pharmacy	LAU
Bdeir Mohammad	Pharmacy	BAU
Bechara Michelle	Pharmacy	UL
Chahoud Jad	M.D.	UL
Chami Mariam	M.D.	UL
Chidiac Adel	M.D.	UL
Chlela Christian	Master nurse	USJ / Suisse
Elbonji Sanaa	Pharmacy	UL
Gergi Patrick	M.D.	UL
Ghassani Ali	M.D.	Iran / Equivalence
Haddad Georges	M.D.	UL
Haddad Johnny	M.D.	UL
Haddad Rania	Pharmacy	USJ
Hamadé Olfate	Pharmacy	UL
Hijazi Mohamad	Pharmacy	UL
Jabbour Juliana	Pharmacy	USJ
Khatib Sarah	Pharmacy	UL
Kiwan Stéphanie	Pharmacy	USJ
Loubnan Vilma	Pharmacy	LAU
Melgar Pablo José	M.D.	EI Salvador
Mikhael Mariam	Pharmacy	LAU
Mourad Jad	M.D.	UL
Mroueh Ali	M.D.	UL
Saad Fady	Pharmacy	UL
Saadé Hiba	M.D.	UL
Saaybi Juliana	M.D.	USJ
Salameh Joseph	M.D.	UL
Sayed Ghada	M.D.	UL
Sfeir Maroun	M.D.	UL
Sinno Tala	Pharmacy	LAU
Soussi Hiba	Master biochemistry	AUB

Lebanese University = UL; Lebanese American University = LAU; Beirut Arab University = BAU; St Joseph University = USJ.

- Academic year 2011-2012: Class “Pasteur” included 31 participants

<b>NAME</b>	<b>DEGREE</b>	<b>UNIVERSITY</b>
Abou Dalle Iman	M.D.	UL
Akl Margot	M.D.	UL
Al Bonji Wajdi	M.D.	UL
Atoui Rola	M.D.	UL
Bitar Nancy	Pharmacy	LAU
Chahoud Michèle	Pharmacy	UL
Chouaib Khoulood	Pharmacy	UL
El Jawhari Nour	Pharmacy	UL
El Koborsy Josette	Pharmacy	UL
El Youssef Khaled	M.D.	Balamand
Feghali Céline	Pharmacy	UL
Harb Maya	Pharmacy	LAU
Jalkh Chrystel	Pharmacy	LAU
Jour Ibrahim	M.D.	Balamand
Kassem Youssef Hussein	M.D.	UL
Kalagiyeh Oussama	Pharmacy	UL
Laylo Jocelyne	Pharmacy	UL
Mcheik Amale	Master Biology	BAU
Najem Hiba	Pharmacy	LAU
Nassar Amani	Pharmacy	BAU
Nuruddin Hanan	Pharmacy	BAU
Ramia Elsy	Pharmacy	LAU
Roumieh Rana	Master Biology	BAU
Saab Jean Pierre	M.D.	Italy
Saad Rayan	Pharmacy	BAU
Salameh Ziad	Dentistry	USJ
Sholy Lydia	Pharmacy	Nebraska USA
Torbey Gretta	M.D.	UL
Turk Ayman	Pharmacy	BAU
Zeenny Rony	Pharmacy	LAU
Zeitouny Mona	Dentistry	Bruxelles

Lebanese University = UL; Lebanese American University = LAU; Beirut Arab University = BAU; St Joseph University = USJ.

## The Professional Certificate of “Clinical Research Assistant”

Similar to the post Doc University diploma, the organisation of this certificate involves experts from local and regional universities: from Beirut (Lebanon), from Toulouse, Nancy and Paris VI Universities (France) as well as Cambridge university (United Kingdom).

Details on the university diploma: objectives, required qualities, organisation, training, final exam, etc can be obtained from the website. Briefly, the objective of the certificate is to provide the future CRAs with a high-level education meant to make them familiar with operational aspects of research professions and help them holding the responsibilities of their function. The certificate is organised in collaboration with the public Lebanese university therefore with a very limited cost for the participant. Similarly to the European guidelines, this instruction implies 95 hours of academic courses, 24 hours of workshops, a professional training and a final exam with an anonymous written test and a training evaluation. In order to succeed the certificate, participant has to obtain >12/20 on the written exam and a validation of the training. Because of its professional aspects, this certificate provides professional opportunities and interesting career plans.

Since its establishment in 2010, 2 academic years took place with 2 distinct classes:

- Academic year 2010-2011: Class “Galien” included 8 participants

NAME	DEGREE	UNIVERSITY
Abi hanna Dea	Nurse	Ste Famille Maronite
Abou Rjeily Rima	Laboratory	Balamand
Ajami Colette	Laboratory	Notre Dame du Liban
Assaker Lama	Master Chemistry	UL
Jamal Marie Thérèse	Laboratory	UL
Jreige Yolla	Nurse	Institut d’infirmière - Dekwaneh
Obeid Yollande	Laboratory	UL
Zoghbi Sanaa	Nurse	UL

Lebanese University = UL

- Academic year 2011-2012: Class “Pasteur” included 16 participants

<b>NAME</b>	<b>DEGREE</b>	<b>UNIVERSITY</b>
Abou Abbas Linda	Laboratory	UL
Abou Saad Rim	Biochemistry	UL
Al Haffar Farah	Biochemistry	UL
Choker Sahar	Biochemistry	UL
Dakhloul Maha	BS Pharmacy	BAU
El Kaissi Wahid	Nurse	AUB
Jaber Rana	Biochemistry	UL
Jaber Reem	Biochemistry	UL
Jreige Eliane	Biology	UL
Khalil Charbel	Laboratory	Dekwaneh
Rahal Amal	Nurse	USJ
Saifeddine Amal	Laboratory	USJ
Saleh Nour	Biology	UL
Salhab Vida	Biochemistry	UL
Yazbeck Leila	Biochemistry	UL
Zein Tahani	Nurse	USJ

Lebanese University = UL; American University of Beirut = AUB; Beirut Arab University = BAU; St Joseph University = USJ.

## CLINICAL RESEARCH UNITS (CRU)

Clinical Research Units (CRUs) are units created within academic hospitals; they are meant [to favour and promote the development of clinical research and improve the conditions of clinical study realization](#). CRUs are responsible for the concrete implementation of the studies, together with the participating investigators; they follow up the study within a monitoring process (quality insurance) with the collaboration of the CRAs. Details on the CRU: objectives, mission, organisation, etc, have been described in the Foundation brochure downloadable from the website. Briefly, the objective of the CRU is to provide logistical and technical support for the conception and realization of study projects within the medical and academic community.

The F-MRI project aims the implementation of distinct URCs within those academic hospitals or institutions having applied and declared their willingness to initiate a research activity. These structures must meet the participation criteria as described in specific documents. They have to apply and fulfil a specific affiliation form. According to the requested criteria, this can be accepted or not by the Foundation.

[In 2011, the Foundation had received several demands from various hospitals and institution. After reviewing the corresponding affiliation forms, it has been decided to setup 2 CRUs:](#)

- [Mount Lebanon Hospital](#): This hospital is located in Beirut and affiliated to the Faculty of Medicine of the Lebanese University. It has been recently accredited by the Ministry of Health and the corresponding Institution. This multidisciplinary hospital has several excellence centres mainly in oncology, medical imaging, and endocrinology. The affiliation form has been accepted in July 2011 and the CRU established in October 2011.
- [Lebanese Hospital Geitawi](#): This hospital is located in Beirut and affiliated to the Faculty of Medicine of the Lebanese University. It has been recently accredited by the Ministry of Health and the corresponding Institution. The affiliation form has been accepted in December 2011 and the CRU is being established and will be operational during the second semester of 2012.

# RESEARCH PROJECTS

The research projects in which the F-MRI is attempting to participate or to initiate may cover the various aspects of medical research including the clinical and post-marketing phases: phase II to phase IV clinical studies, epidemiological and pharmaco-epidemiological surveys, medico-technological studies, observatories and registries...etc. In order to develop this activity, The F-MRI introduced 2 projects: one in the domain of medical technology, and one clinical research project.

## 1. Study project in medical technology:

- **Assessment of the accuracy of the blood pressure measurements using 3 various methods:** Mercury sphygmomanometer, brachial oscillometric device and wrist oscillometric device. Details of the study protocol have been described in specific document. Briefly, the study is performed in adult population according to the International protocol version 2 (2010) of the European Society of Hypertension. The statistical analysis is performed using specific software developed by the International Society of vascular Health and the Foundation. Ambulatory patients from the Mount Lebanon Hospital and various outpatient clinics will be included in the study.  
This study has been possible thanks to collaboration among Asian and European Institutions and The Foundation. It has been scheduled as following: First patient: November 2011, Last patient February 2012, Statistical analysis March 2012, publication third trimester 2012.

## 2. Clinical study:

- **Phase III study in the cardio metabolic field:** This International multicenter double-blind double-dummy active-comparator controlled study is summarized in a specific confidential scientific documentation. It has been submitted and accepted by the corresponding ethical committee. The study has been scheduled to start December 2011.

## 3. Development of Methodological tool:

- **Development of scientific software to analyze and report results according to the International validation protocol of the European Society of Hypertension:** This development has been possible thanks to collaboration among the Foundation and the International Society of Vascular Health (ISVH®) and a specialised French software engineer company. The software allows the statistical analysis and the edition of the corresponding report according to the validation protocol of the ESH. The software has been developed end 2010, tested and validated during the first trimester 2011. This valuable tool is now regularly used by several specializes research units.

# NETWORKS

The success of medical research is deeply linked to the development of inter-units collaboration and networks development. To comply with the necessity of sharing the knowledge, the skills, and the means needed to develop a research activity, numerous research networks have to be created and developed. This is one of the main objectives of the F-MRI project.

To achieve its objectives, [The Foundation initiated in 2010 the development of several networks.](#)

## A network of teaching profession

To establish an advance degree in medical research that meet the international standards and requirements, [the Foundation has established in 2010 a network of teachers of high scientific and pedagogical qualities.](#) This teaching profession network consists of researchers, doctors and professors from national and international universities (Lebanon, France, United Kingdom, etc.).

## A network of centres of trainees

To offer candidates an internship of high scientific value, but practical in recognised institutions working in the medical research, [the Foundation has established in 2010 a network of centres of trainees.](#) This network includes institutions established either in Lebanon or in France in different fields: pharmaceutical industries, Hospitals, research units and Contract Research Organisations (CROs).

## A network of clinical research

In order to provide efficient research institutions, development of networks of both clinical research units and out-patients clinics is of most importance. In this regard, The Foundation initiated the creation of these two networks in 2010 and 2011

- **A network of clinical research units and clinics**

The Foundation initiated in 2010 [a network of out-patient clinics located in Beirut and suburbs.](#) [This networks which consisted of 5 centres in 2011](#) and will be developed as appropriate according to the studies implementation. The aim of this network is to collaborate with the academic clinical research units to facilitate conducting studies.

In order to facilitate the studies implementation and mainly those that require multiple centres either because of their objective or because of a large number of subjects, collaboration among several clinical research units is much needed. As mentioned previously, the foundation has [established in 2011 a clinical research unit, a second one is in process;](#) moreover the Foundation is aiming to develop [collaboration between its own centres and existing ones](#) provided they meet its requirements.

- **A network of clinical researchers**

The Foundation [initiated in 2011 a network of clinical researchers](#) from different countries (Europe and MENA region) with an ultimate aim to create a large-scale academic, inter-university and translational collaboration able to bring significant contribution to medical research.

## OTHER DEVELOPMENT ISSUES

Development of the medical research has to be initiated in close cooperation with the corresponding tutorship, mainly the Ministry of Health as well as universities and academic hospitals. In this regards, the Foundation undertook its activities with close collaboration with various institutions which cover the different fields related to medical research.

### Health Authority & Public health

From the very beginning of its activities, the Foundation undertook a close collaboration with Lebanese Ministry of Public Health? This collaboration resulted to the followings:

- **Official Assignment by the Lebanese Minister of Health:**

In order to develop the medical research, [The Lebanese Ministry of Public Health mandate](#) Pr Roland Asmar, chairman of the Foundation, (appendix 5) the following missions:

- The establishment and development of an academic inter-university medical research centre in the field of medical science in Lebanon.
- The establishment and development of the cooperation between Lebanon and the Middle East countries and Europe in regards to this centre.

Based and encouraged by this authorization, the Foundation has initiated and developed the project entitled: "Development of the Academic Medical Research In the Middle East". This project is described in a specific brochure downloadable from the Foundation website.

- **Collaboration with the Lebanese Minister of Health for medical research regulations:**

Achievement of clinical trials is submitted to international regulations. Compliance with these regulations is of most importance to ensure the research quality. Accordingly, clinical trials should be submitted to Local National Authorities (e.g. Ministries of Health, Institution) and Ethics Committees for evaluation and approval. In this regards, The FDA and The EMA decided to undertake initiatives and actions such as: assessment of 3rd countries National Regulatory Authorities, Develop contacts with National Regulatory Authority, and conduct "Targeted Inspection".

In Lebanon, up to date, Local National authority guidelines to regulate clinical trials are missing. Because compliance to clinical research regulations is essential for the research future in Lebanon, the Lebanese MOH decided to undertake actions to establish National regulatory Authority and institution for clinical trials. In this regard, The MOH and the Foundation undertook close collaboration to establish National regulations to evaluate clinical trials acceptability and follow up. [Draft of the detailed guidelines of clinical trials and its corresponding directive has been established by the Foundation and submitted for evaluation at the end of 2011.](#) The directive and its corresponding forms are available in a downloadable format at the Foundation website. Implementation of this directive is scheduled for 2012.

## Collaboration with the Lebanese University

The implementation of the Foundation project started in Lebanon by collaboration between the F-MRI and the medical sciences faculty of the Lebanese university. This public university incorporates several faculties which may be involved in the medical research: medical sciences, pharmacy, dentist, sciences, etc.

Considering that the research education is of most importance, the Lebanese university mainly the medical sciences faculty, wished to initiate and develop the research academic education; this has been possible thanks to the collaboration with the Foundation.

Therefore, a [collaboration agreement has been signed in 2010 between the Medical Sciences faculty of the Lebanese University and the Foundation \(appendix 6\) in order to develop the academic research education](#) at different levels ( post-doc and BS) as well as the initiation of the medical research in its related academic hospitals. In 2010-211, two classes have been graduated and one research centre established in an academic hospital (see specific chapters).

## Collaboration with International research centres

Development of medical research is deeply linked to collaboration with other national and international research units. Such collaboration allows sharing the knowledge, the skills, and the means needed to develop a research project. In this regard, [The Foundation signed in 2010 a collaboration agreement with the “Naturalia et Biologia” Association \(Paris, France\)](#), namely the “Centre de diagnostic et thérapeutique, Unité de prévention cardiovasculaire” de l’hôpital Hôtel-Dieu, Paris, France (appendix 7). This agreement is for collaboration in assessing the blood pressure algorithms and the validation of automatic devices for blood pressure measurement.

Up to date, two collaborative studies took place; their results have been presented at international congresses and partly published in international peer review international journal (see publication section).

## Continuous Medical Education

Continuous Medical Education (CME) activities were defined as one of the activities to be developed by the F-MRI. An efficient CME needs to be performed according to a well established methodology. After assessing the need of doctors and researchers, the adapted CME programs is defined and implemented. Moreover, CME activities need to be recognized and accredited by national or international scientific societies or institutions.

In order to develop a recognised and accredited CME activities, [the Foundation has entered in 2011 an agreement with the “International Society of Vascular Health”](#). This approval includes the collaboration to define the scientific programs, to indicate potential national or international speakers and to help the corresponding editing activities.

[A first experience of CME activity took place in 2011 at a regional level](#) in Istanbul, Turkey. This has been possible thanks to the sponsoring of various pharmaceutical company and medical device manufacturers. Analysis of the evaluation forms fulfilled by more than 150 participants was very satisfactory and promising.

## Publications

Despite the fact that the foundation is in an initiative period of its activities, several publications were performed in international journals with peer review:

1. Asmar R. L'hypertension au Coeur du cerveau. Editorial. *Circulation*, french version. 2011; 11: 371-2.
2. Topouchian J, Agnoletti D, Blacher J, Youssef A, Ibanez I, Khabouth J, Asmar R. Validation of three devices using single size cuff for home blood pressure measurements: The Omron M6 Comfort, the Omron HEM-7420 and the Withings BP-800. Submitted for publication.
3. Topouchian J, Agnoletti D, Blacher J, Youssef A, Ibanez I, Khabouth J, Khawaja S, Beaino L, Asmar R. Validation of four automatic devices for self-measurement of blood pressure according to the international protocol of the European Society of Hypertension. *Vascular Health and Risk Management* 2011 ; 7 : 709–17
4. Johnston A, Asmar R, Dahlöf B, Hill K, Jones DA, Jordan J, Livingston M, Macgregor G, Sobanja M, Stafylas P, Rosei EA, Zamorano J. Generic and therapeutic substitution: a viewpoint on achieving best practice in Europe. *Br J Clin Pharmacol*. 2011; 12. doi: 10.1111/j.1365-2125.2011.03987.
5. Asmar R, Gosse P, Queré S, Achouba A. Efficacy of morning and evening dosing of amlodipine/valsartan combination in hypertensive patients uncontrolled by 5 mg of amlodipine. *Blood Press Monit*. 2011; 16:80-6.
6. Asmar R, Oparil S. Comparison of the antihypertensive efficacy of irbesartan/HCTZ and valsartan/HCTZ combination therapy: impact of age and gender. *Clin Exp Hypertens*. 2010;32:499-503.
7. Parati G, Asmar R, Bilo G, Kandra A, Di Giovanni R, Mengden T. Effectiveness and safety of high-dose valsartan monotherapy in hypertension treatment: the ValTop study. *Hypertens Res*. 2010;33:986-94.
8. Mengden T, Asmar R, Kandra A, Di Giovanni R, Brudi P, Parati G Use of automated blood pressure measurements in clinical trials and registration studies: data from the VALTOP Study. *Blood Press Monit*. 2010;15:188-94
9. Parati G, Stergiou GS, Asmar R, & al. ESH Working Group on Blood Pressure Monitoring. European Society of Hypertension practice guidelines for home blood pressure monitoring. *J Hum Hypertens*. 2010; 24:779-85.
10. O'Brien E, Atkins N, Stergiou G, Karpettas N, Parati G, Asmar R, Imai Y, Wang J, Mengden T, Shennan A; Working Group on Blood Pressure Monitoring of the European Society of Hypertension European Society of Hypertension International Protocol revision 2010 for the validation of blood pressure measuring devices in adults. *Blood Press Monit*. 2010;15:23-38. Erratum in: *Blood Press Monit*. 2010;15:171-2.
11. Asmar R, Khabouth J, Mattar J, Pecchioli V, Germano G. Validation of three professional devices measuring office blood pressure according to three different methods: the Omron BP10, the Omron HBP T105 and the Pic Indolor Professional. *J Hypertens*. 2010;28:452-8.
12. Germano G, Psimenos A, Sarullo F, Venditti A, Pecchioli V, Asmar R. Validation of four automatic devices for self-measurement of blood pressure according to the International Protocol: the Pic Indolor Personal Check, Comfort Check, My Check and Travel Check. *Blood Press Suppl*. 2009;1:15-23.
13. Asmar R, Khabouth J, Topouchian J, El Feghali R, Mattar J. Validation of three automatic devices for self-measurement of blood pressure according to the International Protocol: The Omron M3 Intellisense (HEM-7051-E), the Omron M2 Compact (HEM 7102-E), and the Omron R3-I Plus (HEM 6022-E). *Blood Press Monit*. 2010; 15:49-54.
14. Sie MP, Yazdanpanah M, Mattace-Raso FU, Uitterlinden AG, Hofman A, Hoeks AP, Reneman RS, Asmar R, Van Duijn CM, Witteman JC. Genetic variation in the renin-angiotensin system and arterial stiffness. The Rotterdam Study. *Clin Exp Hypertens*. 2009;31:389-99.

## Perspectives

### Education

- **Interuniversity collaboration**

*At the national level,* Continue to develop the inter-university aspects of the university diploma and the university certificate concerning the academic education on medical research.

*At the international level,* initiate contacts in order to transform the national academic education on medical research into an international inter-university diploma. Universities mainly from Europe will be approached for this purpose.

- **Seminars on medical research**

Considering that professional employments are also interested by the research education, the foundation is willing to develop specific modulus and seminars. These seminars will take place during 2-3 days at the end of the week.

### Clinical research units

In order to develop the capacity to conduct large and multicenter studies, the Foundation is willing to develop 2 more clinical research units in 2 different academic hospitals. To be well distributed across the territory, these centres have to be outside Beirut.

### Research projects

- **Participation to existing projects**

The Foundation will organise meetings and take contact with the concerned persons and institutions in order to increase its capacity to participate into national or international research projects.

- **Initiation of research projects**

The Foundation is willing to initiate its proper research projects mainly in the epidemiological and prevention of cardiovascular diseases fields.

### Continuous Medical education

The Foundation will undertake several actions to develop the CME activities in collaboration with the "International Society of Vascular Health".

### Networks

The Foundation will undertake actions to develop the regional and international network among the academic research institutions and persons.

### Collaboration with national authorities

Activities in relation with the national authorities mainly the Ministry of public health will constitute one of the priorities of the Foundation actions.

### Sponsoring

The Foundation will undertake actions in order to encourage sponsors to contribute to its activities either by sharing professionally or by attributing financial grants.

# APPENDIXES

1. University Diploma - Class Galien - Academic Year 2010 – 2011
2. Clinical Research Associate / Clinical Research Technician – Class Galien – Academic Year 2010 - 2011
3. University Diploma – Class Pasteur – Academic Year 2011 – 2012
4. Clinical Research Associate / Clinical Research Technician – Class Pasteur – Academic Year 2011 - 2012
5. Letter of Authorization – Lebanese Ministry of Public Health
6. Collaboration Agreement between the Lebanese University and the Foundation – Medical Research Institute
7. Collaboration Agreement between the Foundation – Medical Research Institute and Naturalia & Biologia Association
8. Development of Methodological tools

**University Diploma**  
**“Principles in Medical Research”**  
**Class Galien / Academic Year 2010 -2011**



Toni Abdo



Moussa Bou Farah



Atika Adhami



Souhaila El Natour



Rayane Asmar



Mohammad Bdeir



Michèle Béchara



Jad Chahoud



Mariam Chami



Adel Chidiac



Christian Chlela



Sanaa Elbonji



Patrick Gergi



Ali Ghassani



Johnny Haddad



Rania Haddad



Olfate Hamadeh



Sarah Khatib



Mohammad Hijazi



Juliana Jabbour



Stéphanie Kiwan



Vilma Loubnan



Pablo José  
Melgar



Mariam Mikhael



Jad Mourad



Ali Mroueh



Fady Saad



Hiba Saadeh



Joseph Salameh



Ghada Sayed  
Hasan



Maroun Sfeir



Tala Sinno



Hiba Soussi

**Clinical Research Associate / Clinical Research Technician**  
**Class Galien**  
**Academic Year 2010 -2011**



Déa Abi Hanna



Rima Abou Rjeily



Colette Ajami



Lama Assaker



Marie Thérèse  
Jammal



Yolla Jreije



Yollande Obeid



Sanaa Zoghbi

**University Diploma**  
**“Principles in Medical Research”**  
**Class Pasteur / Academic Year 2011 - 2012**



Iman Abou Dalle



Margot Akl



Wajdi Al Bonji



Rola Atwi



Nancy Bitar



Michèle Chahoud



Khouloud Chouaib



Nour El Jawhari



Josette El Koborsy



Khaled El Youssef



Céline Féghali



Maya Harb



Chrystel Jalkh



Ibrahim Jour



Hussein Kassem  
Youssef



Oussama Kalagieh



Amale Mcheik



Hiba Najem



Amany Nassar



Hanan Nuruddine



Elsy Ramia



Rana Roumieh



Jean Pierre Saab



Rayan Saad



Ziad Salameh



Lydia Sholy



Gretta Torbey



Ayman Turk



Mona Zeitouny



Rony Zeenny

**Clinical Research Associate / Clinical Research Technician**  
**Class Pasteur**  
**Academic Year 2011 -2012**



Linda Abou Abbas



Rim Abou Saad



Farah Al Haffar



Sahar Choker



Maha Dakhloul



Wahid El Kaissi



Rana Jaber



Rim Jaber



Elianne Jreije



Amal Rahal



Amal Saifeddine



Nour Saleh



Vida Salhab



Leila Yazbeck

Beirut, November 10<sup>th</sup>. 2009

### **Letter of Authorization**

*By the present letter, the Ministry of Public Health of the Lebanese Republic, mandate Professor Roland Asmar the following mission:*

- The Establishment and Development of an Academic inter-university research center in the field of medical sciences in Lebanon.*
- The Establishment and Development of the cooperation between Lebanon, the Middle East countries and Europe in regards to this center.*

*The mission is fully voluntary.*

*Mohammad Jawad Khalifeh*

*Minister of Public Health*

*Beirut, Lebanon*





٢٠١١/٤/٢١

إتفاقية تعاون موقعة فيما بين

الجامعة اللبنانية - كلية العلوم الطبية  
ممثلة بشخص رئيس الجامعة اللبنانية  
الدكتور زهير شكر  
و  
ممثل بشخص مؤسسها ورئيسها  
البروفسور رزق الله جورج أسمر  
فريق أول  
فريق ثان  
مؤسسة الأبحاث الطبية  
Foudantion -  
Medical Research Institute  
(F-MRI)

لما كانت مؤسسة الأبحاث الطبية تتعاطى من مجمل ما تتعاطاه تقديم الدراسات الطبية العامة والجامعية وتعليمها ونشرها وإنشاء المجمعات والمستوصفات ومراكز البحوث الطبية والسهر على تطويرها كما وإدارتها إذا ما دعت الحاجة إلى ذلك،

ولما كانت منطقة الشرق الأوسط وخاصة لبنان بحاجة ماسة لمثل هكذا نشاط بحثي علمي طبي عالي المستوى، ولما كانت الجامعة اللبنانية - كلية العلوم الطبية ترغب بالإستعانة بخبرة هذه المؤسسة بالمجال الطبي وبالتحديد بخبرة مؤسسها ورئيسها البروفسور رزق الله (رولان) جورج أسمر من أجل تطوير الأبحاث الطبية بجميع فروعها والتعمق في المجال العلمي لدى طلابها عن طريق نشر ما يمكن من الدراسات الطبية والأبحاث،

لذلك فقد تم الإتفاق بين الفريقين المتعاقدين على ما يلي :

مادة أولى : تعتبر المقدمة أعلاه جزءاً لا يتجزأ من هذا الإتفاق.

مادة ثانية : يقدم الفريق الأول ضمن امكانياته جميع المساحات والمراكز والمكاتب والمعدات والمراجع والآلات اللازمة والضرورية من أجل تمكين الفريق الثاني من مزاولة نشاطه العلمي.

مادة ثالثة : يقدم الفريق الثاني، من أجل أبحاث متطورة ومتقدمة، فريق عمل ينتقيه بالتنسيق مع كلية العلوم الطبية وهو مؤلف من اخصائيين في المجال التقني الطبي ويكون المسؤول عن عمله ضمن أنظمة العمل والقوانين المرعية الإجراء لدى الفريق الأول.

مادة رابعة : تكون للفريق الثاني كامل الاستقلالية والحرية التامة لدى تنفيذ نشاطه وعمله وبالطريقة التي يراها مؤاتية لحسن سيره وتأدية لواجبه على أكمل وجه على ان لا تتعارض مع قوانين وأنظمة الفريق الأول.

Handwritten signatures in blue ink.



- ٢ -

اتفاقية تعاون موقعة فيما بين  
الجامعة اللبنانية ، كلية العلوم الطبية ومؤسسة الأبحاث الطبية

مادة خامسة : يتفق الفريقان على تنظيم مؤتمرات او دراسات او ابحاث ويتفق الفريقان على سبل التمويل.

مادة سادسة: يكون الفريق الثاني هو المسؤول والمخول الأوحد باستخدام الأشخاص الذين يرى فيهم الكفاءة اللازمة لحسن سير عمل المؤسسة والدراسة، كما ويكون هو المخول الوحيد عن صرفهم من الخدمة، وبالتالي فهو من يتحمل رواتبهم ومستحققاتهم.

مادة سابعة : على الفريق الأول السماح للفريق الثاني ضمن نطاق الجامعة اللبنانية ووفقاً للقوانين المرعية الإجراء تسهيل أعماله وأبحاثه ودراساته التي يرغب بالحصول عليها بغية تأدية الدراسة والعمل.

مادة ثامنة : حددت مدة هذه الإتفاقية بخمس سنوات قابلة للتجديد بالشروط ذاتها ما لم يعرب أحد الفريقين عن رغبته في عدم تجديد الإتفاقية أو يطلب تعديلها على أن يبلغ رغبته هذه خطياً إلى الفريق الآخر قبل ستة أشهر على الأقل من إنتهاء أجل هذه الإتفاقية.

حرر هذا الإتفاق على نسختين بيد كل فريق نسخة ليعمل بمضمونها لدى الحاجة.

بيروت في ٦ / ٨ / ٢٠١١

الفريق الأول  
رئيس الجامعة اللبنانية  
دكتور زهير شكر



الفريق الثاني  
رئيس مؤسسة الأبحاث الطبية  
البروفسور رزق الله جورج أسمر

# CONVENTION DE COLLABORATION

## (SUBVENTION)

### ENTRE :

**La Fondation-Instituts Recherche Médicale, F-IRM®**, - fondation à but non lucratif et d'utilité publique, ayant son siège social au ACE, place de Saint Gervais 1, 1201 Genève, Suisse, inscrite au RC de Genève sous le n°: CH-660-1836010-5, ci après désigné par le sigle F-IRM, représentée par son président, Monsieur le Professeur Roland ASMAR

D'UNE PART

### ET :

**L'ASSOCIATION NATURALIA ET BIOLOGIA**, association régie par la loi 1901, à caractère scientifique, ayant son siège social au 46, boulevard des Invalides , 75007 Paris, ci-après désignée par le sigle N E B, représentée par son Président, Monsieur le Professeur Michel RICARD,

D'AUTRE PART

Il a été exposé et convenu ce qui suit :

#### ARTICLE 1 : OBJET ET RESPONSABILITE SCIENTIFIQUE

La présente convention a pour objet de définir le cadre et les conditions de collaboration entre F-IRM et NEB pour le soutien financier que F-IRM décide d'apporter à la recherche intitulée :

#### **Evaluation et Validation des algorithmes de mesure de la Pression Artérielle**

Cette recherche est placée sous la responsabilité scientifique de **Monsieur le Professeur Jacques BLACHER**, Membre de NEB, **CENTRE DE DIAGNOSTIC ET DE THERAPEUTIQUE, Unité d'Hypertension Artérielle, Prévention et Thérapeutique Cardio-vasculaires, HÔTEL-DIEU, 1 rue de la Cité 75181 PARIS Cedex 04**. Elle sera réalisée avec la collaboration de certains membres de l'équipe du Professeur Jacques BLACHER

#### ARTICLE 2 : CONDITIONS DE FINANCEMENT, PERIODE D'UTILISATION DES FONDS, ENGAGEMENT DES CONTRACTANTS

Au titre de cette opération de recherche, F-IRM s'engage à verser une subvention sans contrepartie de résultat, d'un montant de **DIX MILLE euros**.

Ces fonds devront être utilisés pendant la période du 02/11/2010 au 31/12/2011

Le versement sera effectué par virement à l'ordre de Naturalia et Biologia par virement bancaire au compte HSBCFR Odéon

RIB : 30056/00070/00705443530/86

NEB déclare, que cette subvention sera déclarée par ses soins à la Préfecture de Paris conformément à l'article R 5124-66 du code de la Santé Publique.

NEB s'engage à ce que cette somme soit utilisée conformément à ses statuts, et certifie que ces fonds ne serviront pas à couvrir des dépenses à caractère privé de ses membres.

**ARTICLE 3 : CONFIDENTIALITE**

Chacune des parties contractantes considérera comme strictement confidentielles toutes les informations concernant l'autre partie au plan technique, économique, commercial et financier dont elle pourra avoir connaissance à l'occasion de l'exécution de la présente convention. Cette obligation de confidentialité s'imposera au personnel de chacun des contractants. Chacun des contractants ne devra ni utiliser ni faire état de ces informations d'une manière quelconque sans l'accord préalable et écrit de l'autre partie.

**ARTICLE 4 : LITIGES**

En cas de litige sur l'interprétation de la présente convention, les parties s'efforceront de résoudre leur différend à l'amiable. En cas de désaccord persistant, les juridictions compétentes sont les tribunaux de Paris.

Fait à Paris, le 02 Novembre 2010 en trois exemplaires originaux

Pour F-IRM



R. ASMAR

Pr Roland ASMAR  
Président

Foundation - Medical Research Institutes  
Beirut - Achrafieh, District  
Geneva: Place de St-Gervais 1, CP 2049, 1211 Geneva 4, Suisse  
RC: CH-660-1836910-5

Foundation - Medical Research Institutes  
Beirut - Achrafieh, District Mathaf, Olivetti Stae.  
Geneva: Place de St-Gervais 1, CP 2049, 1211 Geneva 4, Suisse  
RC: CH-660-1836910-5

Pour NATURALIA ET BIOLOGIA

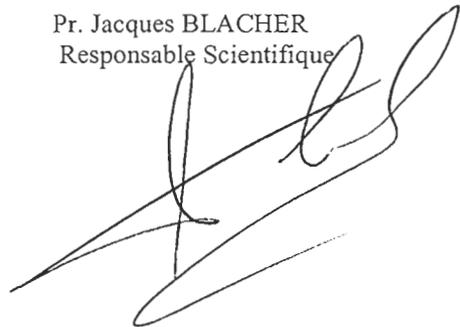
Pour le Président empêché  
et par délégation:  
le Vice-Président.

Pr. Michel RICARD  
Président

Pr. André MARIOTTI



Pr. Jacques BLACHER  
Responsable Scientifique





Device Study Subjects Report

Number of subjects : 0 (M: 0, F: 0)					
SBP (mmHg)	< 90	90 - 129	130 - 160	161 - 180	> 180
n	0	0	0	0	0
DBP (mmHg)	< 40	40 - 79	80 - 100	101 - 130	> 130
n	0	0	0	0	0

Subject n° 1(-)/0

Excluded : Observer Disagreement Comments :

**Recruitment Details :**

Number :  Initials :  Date :  (HH:MM)

Sex :  F  M  ? Date of birth :  Age :

Weight :  kg Height :  cm

On Antihypertensive Medication :  Yes  No  ?

Arm circumference :  cm Wrist circumference :  cm

Cuff for Test Device :  Small  Standard  Large  Other

**Entry Measurements (mmHg) :**

BPA	Observer 1		Observer 2		BPB	Device	
	SBP	DBP	SBP	DBP		SBP	DBP
<input type="text"/>							
BPA	Observer Mean		Category		Count		
	SBP	DBP	SBP	DBP	SBP	DBP	
<input type="text"/>	0	0	LL	LL	0	0	

**Validation Measurements**

Observer 1	BP1		BP3		BP5		BP7	
	SBP	DBP	SBP	DBP	SBP	DBP	SBP	DBP
<input type="text"/>								
Observer 2	BP1		BP3		BP5		BP7	
<input type="text"/>								

**About BPDValRep**

International Society of Vascular Health  
Foundation - Medical Research Institutes

Validation of blood pressure  
measuring devices

BPDValRep version 1.0.0 - 12/2010