

PROJECT DOCUMENT MODEL FORMAT
PEREZ-GUERRERO TRUST FUND FOR ECONOMIC AND TECHNICAL COOPERATION AMONG
DEVELOPING COUNTRIES, MEMBERS OF THE GROUP OF 77
GOVERNMENT OF JORDAN

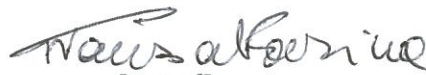
Type of project: Regional
Title: Int/[**A Proposal to Enhance the Diagnostic Capacities of Rabies Disease With Special Reference to Its Pathology and Epidemiology in Egypt, Algeria, the Palestinian Authority (PA) and Jordan"**].

Sector: [UNDP will insert]
Beneficiaries: More than 100,000 sheep and goat farmers, 4,500 dairy cattle farmers, 20,000 pet owners in Jordan, Egypt, Palestinian authority and Algeria are influenced by rabies. Hundreds of national, regional, and international enterprises will be also benefited. In addition, graduate students, technicians, laboratory research assistants, academicians and policy makers in the mentioned countries will also be benefited. Ecologists and environmental scientists in the region also will gain from this proposal regarding the emergence of disease and the role of wild life in the transmission of the disease, and its distribution and the type of viral strains exist in these countries. This will help building regional strategies for vaccinations.

Duration of project: December 2012 to October 2013.
Estimated starting Date: January 1, 2013
PGTF inputs: **23,000.00 US\$**
Other inputs: **45,000.00 US\$**
Total cost of project: **68,000.00 US\$**


Signed on behalf of:

UNDP


[signed]
Resident Representative

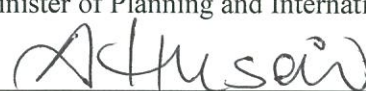
Date:

Government of Jordan


Name : **Dr. Jafar Abed Hassan**
Title : Minister of Planning and International Cooperation

Date:

Implementing Institution:


Name: **Prof. Abdallah I. Husein Malkawi** Date: December 12th, 2012
Title: President, Jordan University of Science and Technology (JUST)



Part Ia. Situation Analysis

Rabies is a fatal zoonotic viral infection of the central nervous system that is transmitted by the bite of a rabid animal and is capable of infecting all mammal species. It is a serious veterinary and public health problem in Jordan and in many other countries in the region and worldwide. It has been recognized as one of the most feared human diseases for thousands of years. The numbers of human rabies deaths are estimated at 40,000–100,000 worldwide each year and around 10 million people receive post exposure treatment (World Health Organization, 2006).

Rabies is commonly reported in Algeria, Syria, Lebanon, Oman, Iran, and Turkey where stray dogs maintain the virus circulation with the minority of infections occur among wildlife such as jackals, squirrels, stone martens, foxes, monkeys and wolves. ; Bizri *et al.*, 2000; Nadin-Davis *et al.*, 2003; Yakobson *et al.*, 2004, Johnson *et al.*, 2003). Stray dogs are also the reservoir of most of rabies infections in Egypt where the disease is responsible for approximately 30–40 human cases per year as reported to the WHO (Matter *et al.*, 2004). Animal rabies is prevalent in Israel with an annual incidence of 50–80 laboratory-confirmed cases (Gdalevich *et al.* 2000). Animal rabies is also endemic in Jordan with 164 laboratory confirmed cases during 1982-1995 (average of 12 cases per year) (Al-Qudah *et al.*, 1997). Five thousand people in Yemen received rabies through being bitten by stray dogs this year, said experts. Ahmed Al-Wared, director of the National Program for the Eradication of Rabies, confirmed that “the numbers of deaths every year are 30, and it is increasing.” He noted that there are about a million dogs in Yemen, and only 10-20% of these are owned, while the rest are stray dogs.

Over the last few years dogs became popular pets among Jordanians. An average of 500 dogs is imported every year to Jordan. The number of locally bred dogs is hard to be determined, but based on our experiences; it is estimated to be over 2,000 per year. Since 1994 there are no published studies to evaluate animal rabies prevalence in Jordan.

The diagnosis of rabies has to be quick and reliable in order to evaluate the risk of infection to the exposed individual (Zimmer *et al.*, 1990) and it is also important for health authorities responsible for the surveillance and control of the epidemics and epizootics (Perrin *et al.*, 1986). In 1958, Goldwasser and Kissling reported that the fluorescent antibody technique could be used to demonstrate rabies virus antigens in brain tissues of experimentally infected mice. Further studies have shown this method to be an efficient tool for the diagnosis of rabies and it later became the reference method for the diagnosis of this infection (Beauregard *et al.*, 1965). This technique implies the preparation of smears, impressions or cryosections from brain tissues (hippocampus, cerebellum, cerebral cortex, and the brain stem), tissue fixation, mostly in cold acetone, and staining with fluorescein isothiocyanate-labeled polyclonal or monoclonal anti-rabies antibodies (Kissling, 1975; Dean *et al.*, 1996; OIE, 2004).

Immunohistochemical testing is predominantly used for research purposes and allows the perfect identification and localization of rabies virus antigens, and is ideal for retrospective diagnosis (Johnson *et al.*, 1980; Fekadu *et al.*, 1982; Torres-Anjel *et al.*, 1984; Palmer *et al.*, 1985; Shin *et al.*, 2004). The RT-PCR with subsequent nucleotide sequencing permits the diagnosis of rabies, typing, and molecular epidemiological studies. Since the rabies genome is RNA, the amplification procedure consists of the reverse transcription of the target RNA strain into complementary DNA (cDNA), followed by the amplification of the cDNA by PCR (Tordo *et al.*, 1995, 1996).

The RT-PCR is widely used for rabies diagnosis and different parts of the genome can be targeted for this reason, but in most cases the N gene is utilized (Kulonen and Boldina, 1993; Bourhy *et al.*, 1999; Ito, *et al.*, 2003; Loza-Rubio, *et al.*, 2005). A rapid RT-PCR technique was developed for the detection of the classical rabies virus (genotype 1) and the rabies related EBLVs (genotypes 5 and 6) and also to differentiate between the six established rabies and rabies-related virus genotypes (Black *et al.*, 2000, 2002).

During our cooperative work with the Ministry of Health in the past two years, we examined 27 rabies suspected cases of different animal species (13 dogs). Out of the 27 cases investigated, 21 were diagnosed positive at the Al-Basheer Hospital, Sera and Vaccine Center using FAT. The same samples were tested in our laboratory using histopathology and RT-PCR technology and we found that two samples out of the 21 positive cases were negative. In addition, two samples were found positive of the 6 negative cases by FAT (Hailat *et al.*, manuscript accepted for publication). This suggested that a great need for more than one test for accurate disease diagnosis especial for the false negative cases. In addition we found that long fixation (10% formalin) of brain tissues will not allow the disease diagnosis using immunohistochemistry while 24-48 hour fixation is suitable for disease diagnosis by immunohistochemistry. During our discussion with our counterparts in the government we found a real lack of knowledge and information about the diseases diagnosis using these new technology. Thus, as the FAT is the reference technique for rabies diagnosis, we believe it is very essential to share this new information with our colleagues and disseminate this knowledge to other countries in the region as well.

Therefore, we propose to organize a three day- consultation research workshop where veterinary and public health scientists from the participating countries (Algeria, Egypt, PA, and Jordan) will attend and present their views in these issues. Livestock farmers, veterinarians, animal scientists, medical doctors, undergraduate and graduate students are anticipated to participate in the workshop. We have long experience in organizing national, regional and international workshops in the field of animal disease and agriculture. The Hashemite Kingdom of Jordan has the most advanced system of veterinary education in the region. The veterinary school at JUST consists of a highly trained faculty, with rigorous curriculum and excellent success with its graduates. Consequently, this school is well suited for this initiative to partner with countries in the region. We have conducted several workshops on Veterinary Accreditation and on transboundary animal diseases. The proposed workshop could then be used as a template for helping to promote these issues of understanding for the rest of countries in the region for which they are in great need. The proposed workshop is the first one to be conducted in this issue in the region and hopefully will be a model for other countries and regions and pave the road for international conference in the region.

Part Ib. Strategy:

In the last two years, for the first time, we were able to accurately describe and diagnose the rabies disease in dogs, sheep, goats, cattle, camel, donkeys, horses as well as other animal species using histopathology, FAT technology, Immunohistochemistry and molecular biology (Hailat et al, manuscript accepted). These techniques were newly introduced to our laboratories and to Jordan. As rabies is one of the transboundary animal and human diseases, joint forces in different health institutions of different countries in the region are necessary. Increased attention and public awareness among farmers, veterinarians, and public health personnel is needed. The field veterinarians started to send more suspected cases to the Sera and vaccine center in Al-Basheer Hospital for confirmation of their field diagnosis. Later on, more interest in scientific research and surveillance of rabies was expressed. The veterinarians and technicians in the Ministry of Health who are responsible for the rabies diagnosis use only the FAT technology as the reference technique for rabies diagnosis, and are not aware of the use of histopathology, IHC and PCR at the present time. However, they have shown and expressed their needs for training and capacity development of the disease diagnosis using recent advanced techniques. As a result of this, through formal and informal meetings we have brought to the attention of our veterinary colleagues in the Ministry of Health and agriculture the importance and the occurrence of rabies disease and the diagnostic capacities in Jordan and in the region.

It is anticipated that more research will be conducted and focused on rabies disease with emphasis on diagnostic capacities and training, and harmonization of the diagnostic methodologies between countries in the region. Such research is expected to be extended to identify the strains of the virus in the participating countries which will help the understanding of the epidemiology and disease movement and transmission across the borders of neighboring countries. Moreover, these workshops will stimulate countries in the region to host international conferences on animal diseases of similar importance. Brochures and pamphlets with pictures in Arabic language will be prepared for the public health scientists and animal scientists to manage and control such diseases.

Plan: We propose to organize a consultation research workshop that will bring together some key players in animal and public health specialists with reference to Rabies disease. Ideally, we would have 1-2 individuals from each of the three main branches – government, academics, and private sector from the participating countries (total of 8-11 people). In addition, there should be 2-3 individuals from the agriculture and health committees in the lower house.

Goal: Demonstrate, through expert discussion and presentation, that Histopathology, Immunohistochemistry, FAT and PCR technology are effective techniques for improving laboratory diagnosis and benefiting animal health and public health sectors in the Middle East and North African (MENA) region.

Objectives:

- 1- To enable sharing of expertise on Rabies disease diagnosis and epidemiology among the countries of Jordan, Egypt, Palestinian Authority and Algeria in animals and humans.
- 2- To facilitate transfer of knowledge and new diagnostic techniques related to animal diseases with special emphasis on Rabies disease in animals and humans.
- 3- To exchange information on the pathology, mechanism and prevalence and status of Rabies disease in the region in animals and humans.
- 4- To increase the human resource capacity in the laboratories for animal diseases diagnosis with reference to Rabies disease.
- 5- To increase the awareness of how to use the best control measures for disease transmission.
- 6- To increase the awareness of farmers, animal scientists and the public about the epidemiology and the transmission of Rabies disease.
- 7- To enhance the communication between and amongst scientists and veterinarians in the ministries of agriculture's and health in the participating countries.
- 8- To produce a proceeding pertaining the status of rabies disease in the region.

Part II. Results Framework

PROJECT RESULTS AND RESOURCES FRAMEWORK

<p>Intended Outcome:</p> <ul style="list-style-type: none"> ▪ The issue of Rabies as animal and human diseases is discussed and brought up to the concerned scientists and policy makers in the region. ▪ Knowledge and information in regard to recent methods of diagnosis of rabies is transferred. ▪ The present status and measures taken by the Ministries of agriculture and health in the region is shared. ▪ The skills of researchers, academicians and veterinarians in the ministries of agriculture and health for more accurate diagnosis and better control measures of rabies is enhanced. ▪ The capacity of the diagnostic laboratories is upgraded using modern diagnostic protocols. ▪ The communication between scientists interested in the disease in the 37 faculties of veterinary medicine in the Arab World is started and enhanced. ▪ Farmers' awareness and concerns of the public health issue of the diseases is increased. ▪ A strategy for management and control of such a disease by Ministries of agriculture and health in the region is established. ▪ Regulations and instructions regarding rabies handling is presented and discussed. ▪ A control measure program of wild life role in transmission is established. ▪ A proceeding on the papers and reports on the awareness and public health concerns of rabies disease in the region is prepared. 				
<p>• Outcome indicator:</p> <ul style="list-style-type: none"> ▪ Improved methods of diagnosis of rabies in animals and humans (cases per year/per country, announcement to the OIE office and WHO office). ▪ Using new diagnostic technology (PCR and viral serotypes identified, IHC, Histopathological slides, role of wilde life and their densities). ▪ Increased numbers of cases suspected for rabies by field veterinarians. ▪ Increased the professional skills of the farmers in early recognition and suspicion of the diseases (suspected case reports by the farmers). Increased number of positive cases for rabies. ▪ Increased number of published national reports on the epidemiology and pathology of reports disease in the region. ▪ Increase the level of communication between countries in the region (number of meetings, emails, recommendations). ▪ Increase the opportunity for new graduate students and staff training among countries in the region (number of staff exchange). ▪ Participation in international conferences related to zoonotic diseases with special reference to rabies (number and quality of participants). ▪ Request of farmers for quality veterinary services regarding rabies diseases. 				
<p>Project title and number: "A Proposal to Enhance the Diagnostic Capacities of Rabies Disease With Special Reference to Its Pathology and Epidemiology in Egypt, Algeria, the Palestinian Authority (PA) and Jordan".</p>				
Intended Outputs	Activities	Inputs	Budget Line	Budget (Year)
1. Transfer of recent knowledge and skills related to the pathology, epidemiology and molecular	<ul style="list-style-type: none"> ▪ Lectures, seminars, practical preparation of tissues and slides. ▪ Adaptation and use of 	<p>1-By the project proposal:</p> <ul style="list-style-type: none"> ▪ Project technical and financial administration. 	[UNDP will insert]	9,000 \$US

virology of rabies disease in different animal species in the world and in the Middle East.	recent protocols in rabies disease diagnosis.	▪ Participation of national, regional and international invited experts, national consultants and professionals on those diseases.	7,000 \$US
	▪ Gathering needed materials pertaining to the pathology, epidemiology and molecular virology of rabies disease in different animal species in the world and in the Middle East, burn them to CDs to distribute them to participants.	▪ Participation of scientists and technicians in the workshop from the three countries as well as other countries in the region.	1,500 \$US
		▪ Participation of farmers in the workshop.	1,500 \$US
		▪ Meetings, presentations and roundtable discussions.	1,000 \$US
		▪ Providing reagents and diagnostics to conduct the workshop.	1,000 \$US
		▪ Miscellaneous(reporting)	2,000 \$US
		SUBTOTAL	23,000 \$US
		2- By the host-government:	2,000 \$US
		▪ Presentations of country reports and experience on those diseases.	11,000 \$US
		▪ Providing the infra structure for organizing the workshop.	10,000 \$US
		▪ Providing the logistics for organizing the workshop.	4,000 \$US
		▪ Providing local transportations and farm visits	6,000 \$US
		▪ Providing animals, tissue samples, chemicals, reagents and diagnostics to conduct the workshop.	6,000 \$US
		▪ Providing the skilled and technical manpower.	2,000 \$US
	▪ Printing materials and publications.	4,000 \$US	
	▪ Miscellaneous		
		45,000 \$US	

		<u>SUBTOTAL</u>		
2. Transfer of PCR and viral serotype technology to pathology diagnostic laboratories in Jordan, Egypt, the Palestinian Authority and Algeria.	<ul style="list-style-type: none"> ▪ Purchasing biologicals and diagnostic kits. ▪ Collecting and preparing appropriate tissue samples. ▪ Training graduate students and technicians on the techniques. ▪ Optimization of the techniques. ▪ Reading slides prepared in our laboratories and interpretation of results. 		[UNDP will insert]	\$US
3. Preparation and production of immunohistochemistry and histopathologic slides.	<ul style="list-style-type: none"> ▪ Purchasing coated slides. ▪ Using computerized microscopic images of histopathologic slides. ▪ Recording all pathological conditions. ▪ Collecting and analyzing data, and writing up reports. 		UNDP ill insert]	
4. Providing advanced diagnostic services related to rabies disease which will strengthen the national and regional capacities.	<ul style="list-style-type: none"> ▪ Providing reports to farmers and public institutions. ▪ Field days for farmers. ▪ Visits exchange of scientists, researchers and technicians interested in diagnostics of rabies. ▪ Acceptance of national and international graduate students to study such diseases. ▪ Establishing a computerized data base of the diseases. 			
5. Exchange and acquire information related to rabies disease in the Middle East and North Africa.	<ul style="list-style-type: none"> ▪ Visitation of researchers to diagnostic laboratories ▪ Exchange of reports and published papers. ▪ Cooperation on protocols and methodologies. 			

<p>6. Increased awareness and concerns of the farmers and animal scientists and public health officials about rabies disease.</p>	<ul style="list-style-type: none"> ▪ Participation of farmers and scientists in the workshop. ▪ Preparation of leaflets in Arabic to farmers and the public. ▪ Publish information in daily Newspapers. ▪ Showing slides, videotapes and CDs. 			
<p>7. Increased communication between scientists in the region interested in rabies disease and increase public awareness about disease transmission, risk and emergence of animal diseases.</p>	<ul style="list-style-type: none"> ▪ Exchange of addresses, e-mails and phone numbers. ▪ Writing up joint papers and reports. ▪ Writing up joint research proposals. ▪ Public meetings with farmers. ▪ Publishing some information in newspapers and maybe on TV. 			
<p>8. Providing diagnostic reports to pet's owners, farmers and governmental and non-governmental institutions such as ministries of health and agriculture, and agricultural and veterinary syndicates, respectively.</p>	<ul style="list-style-type: none"> ▪ Writing up reports on these diseases and providing them to farmers. ▪ Writing up reports on these diseases and providing them to the ministries of agriculture and health. ▪ Writing up reports on these diseases and providing them to agricultural and veterinary syndicates. 			
Total				68,000\$US

Part III. Management Arrangements:

Execution Arrangements. The project will be executed under the National Execution modality (NEX) with the Government of Host Country as Executing Agent and Implementing Institution as the Designated or implementing institution (This can be a government department or NGO, University etc). The project will be implemented and managed by Jordan University of Science and Technology, Faculty of Veterinary Medicine, Department of Pathology and Animal Health (Prof. N. Hailat). All project staff will be appointed by the implementing institution and will not hold UNDP contracts. The UNDP Country Office will, on request by SU-TCDC, release an advance equivalent to 90 % of budget resources after project approval. The implementing institution will produce a report to be submitted to the UNDP Country Office and forwarded to SU-TCDC. SU-TCDC will recommend release of the remaining 10% of the budget by the Country Office. The role of the Country Office will be to facilitate signature of project document, disbursement of 90 % of resources, forwarding the report to SU-TCDC and disbursing the final 10 % of project funds.

Project Work Plans.

The project will be executed under the National Execution modality (NEX) with the Government of Host Country as Executing Agent and Implementing Institution as the Designated or implementing institution (This can be a government department or NGO, University etc).

A work plan prepared by the implementing institution will be attached as Annex 1 to the Project Document. It will be revised when the first allocation is made.

Monitoring and evaluation; lessons learned.

Progress monitoring will be done by the Executing Agent (Government of Host Country). However, any staff from the UNDP or Perez-Guerrero Trust Fund may undertake monitoring activities in line with managerial roles above.

The project may be audited by the Perez-Guerrero Trust Fund.

Part IV. Legal Context

Standard legal context if a country has signed standard agreement with UNDP. (Country office will provide).

Project Budget

INT/--/K--/95/99 [UNDP will insert] – “A Proposal to Enhance the Diagnostic Capacities of Rabies Disease With Special Reference to Its Pathology and Epidemiology in Egypt, Algeria, the Palestinian Authority (PA) and Jordan”.

Budget “A”

Main Source of Funds: Perez-Guerrero Trust Fund.

Please note that the budget should reflect Perez-Guerrero Trust Fund Resources only. There is a standard format to the UNDP budget which should be followed. Please note that descriptions are for demonstration only. Budget lines and nomenclature to be inserted by UNDP.

Bud. Line	Description	Jordan	Total	Year 1
010	PERSONNEL			
<i>11.01</i>	<i>International Consultants</i>	JUST	2,000 US\$	2,000 US\$
	Accommodations and transportations			
<i>15.01</i>	<i>Official Travel</i>	JUST	5,000 US\$	5,000 US\$
16.01	Missions (international travel)	JUST		
	Accommodations and transportations			
17.01	National Consultants and project administration		9,000 US\$	9,000 US\$
020	Subcontracts			
021.01	Subcontract A			
021.02	Subcontract B			
030	TRAINING		3,000 US\$	3,000 US\$
<i>32.01</i>	<i>Other Training</i>	JUST	1,000 US\$	1,000 US\$
039	TRAINING COMPONENT TOTAL		4,000 US\$	4,000 US\$
40	Equipment			
45.01	Expendable equipment (kits)		1,000 US\$	1,000 US\$
45.02	Non-expendable equipment			
050	MISCELLANEOUS			
<i>52.01</i>	<i>Reporting Costs</i>	JUST	2,000 US\$	2,000 US\$
059	MISCELLANEOUS COMPONENT TOTAL		0,000 US\$	0,000 US\$
090	EXECUTION FEE			
<i>96.01</i>	<i>Execution Fee (?%) [Leave blank when submitting. To be inserted by UNDP]</i>		US\$	US\$
096.99	Line Total		US\$	US\$
099	BUDGET TOTAL		23,000 US\$	23,000 US\$

Annex 1 Work plan.

Work plan for the next [12] months

INT/--/--/--/- [to be inserted by UNDP]

Revision:

Outcome	Output	Activities and Management Actions	mo/yr	mo/yr	mo/yr	mo/yr	mo/yr
T01	01	<p>Activity 1</p> <ul style="list-style-type: none"> ▪ Lectures, seminars, practical preparation of tissues and slides. ▪ Adaptation and use of recent protocols in rabies disease diagnosis. ▪ Gathering needed materials and burn them to CDs to distribute them to participants. <p>Action 1: Lectures and seminars Responsibility: Jordan, Egypt, PA and Algeria</p> <p>Action 2: Gathering information and needed material Responsibility: Jordan, Egypt, PA and Algeria</p>	03/13	03/13	03/13	04/13	5/13
T01	01	<p>Activity 2</p> <ul style="list-style-type: none"> ▪ Purchasing biologicals and diagnostic kits. ▪ Collecting and preparing appropriate tissue samples. ▪ Training graduate students and technicians on the techniques. ▪ Optimization of the techniques. <p>Reading slides and interpretation of results.</p> <p>Action 1: Purchasing biologicals and diagnostic kits Responsibility: Jordan</p> <p>Action 2: Collecting and preparing appropriate tissue samples Responsibility: Jordan</p> <p>Action 3: Reading slides and interpretation of results Responsibility: Jordan, Egypt, PA and Algeria</p>	02/13	03/13	04/13	08/13	09/13
T01	01	<p>Activity 3</p> <ul style="list-style-type: none"> ▪ Purchasing slides, IHC and PCR kits. ▪ Using computerized microscopic images of histopathologic slides. ▪ Recording all pathological conditions and PCR gels. ▪ Collecting and analyzing data, and writing up reports. <p>Action 1: Purchasing IHC, PCR and slides Responsibility: Jordan</p> <p>Action 2: Using computerized microscopic images of</p>	02/13	03/13	04/13	08/13	09/13

histopathologic slides and PCR gels.
 Responsibility: Jordan, Egypt, PA and Algeria

T01 01

Activity 4

- Providing reports to farmers and public institutions.
- Field days for farmers.
- Visits exchange of scientists, researchers and technicians interested in histopathology, PCR and IHC.
- Acceptance of national and international graduate students to study such diseases.
- Establishing a computerized data base of the diseases.

			06/13	7/13
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Action 1: Providing reports to farmers and public institutions

Responsibility: Jordan

Action 2: Field days for farmers

Responsibility: Jordan

Action 3: Acceptance of national and international graduate students to study such diseases.

Responsibility: Jordan, Egypt, PA and Algeria

T01 01

Activity 5

- Visitation of researchers to diagnostic laboratories
- Exchange of reports and published papers.
- Cooperation on protocols and methodologies.

04/13	04/13	04/13	06/13	05/13
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Action 1: Exchange of reports and published papers

Responsibility: Jordan, Egypt, PA and Algeria

Action 2: Exchange of protocols and methodologies

Responsibility: Jordan, Egypt, PA and Algeria

T01 01

Activity 6

- Participation of farmers and scientists in the workshop.
- Preparation of leaflets in Arabic to farmers and the public.
- Publish information in daily Newspapers.
- Showing slides, videotapes and CDs.

			06/13	6/13
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Action 1: Meetings with farmers

Responsibility: Jordan, Egypt, PA and Algeria

Action 2: Leaflet preparation and newspaper reports

Responsibility: Jordan, Egypt, PA and Algeria

Action 3: Video tape and slide show

Responsibility: Jordan, Egypt, PA and Algeria

T01 01

Activity 7

- Exchange of addresses, e-mails and phone numbers.
- Writing up joint papers and reports.
- Writing up joint research proposals.
- Public meetings with farmers.
- Publishing some information in newspapers and maybe on TV.

			05/13	6/13
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Action 1: Exchange of addresses, e-mails and phone numbers

Responsibility: Jordan, Egypt, PA and Algeria

Action 2: Joint research and publications

Responsibility: Jordan, Egypt, PA and Algeria

T01 01

Activity 8

- Writing up reports on this disease and providing them to farmers.
- Writing up reports on this disease and providing them to the ministries of agriculture and health.
- Writing up reports on this disease and providing them to agricultural and veterinary syndicates.

			07/13	8/13
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Action 1: Writing reports

Responsibility: Jordan, Egypt, PA and Algeria

Responsibility: Jordan.

THE PEREZ-GUERRERO TRUST FUND FOR ECONOMIC AND TECHNICAL
COOPERATION AMONG DEVELOPING COUNTRIES

Summary Checklist

Title of project proposal: A Proposal to Enhance the Diagnostic Capacities of Rabies Disease With Special Reference to Its Pathology and Epidemiology in Egypt, Algeria, the Palestinian Authority (PA) and Jordan.

Abstract: Several animal diseases that can be transmitted to humans, called zoonotic diseases, have not been given sufficient attention and their accurate diagnosis still not well developed in many countries in the Middle East and North Africa (MENA). In addition, animal health issues are no longer confined within any single country's borders. Rabies is a fatal zoonotic viral infection of the central nervous system that is transmitted by the bite of a rabid animal and is capable of infecting all mammal species. It is a serious veterinary and public health problem in Jordan and in many other countries in the region and worldwide. The numbers of human rabies deaths are estimated at 40,000–100,000 worldwide each year and around 10 million people receive post exposure treatment (World Health Organization, 2006). Rabies is commonly reported in Algeria, Syria, Lebanon, Oman, Iran, and Turkey where stray dogs maintain the virus circulation with the minority of infections occur among wildlife such as jackals, squirrels, stone martens, foxes, monkeys and wolves. Over the last few years dogs became popular pets among Jordanians. An average of 500 dogs is imported every year to Jordan. The number of locally bred dogs is hard to be determined, but based on our experiences; it is estimated to be over 2,000 per year. The diagnosis of rabies has to be quick and reliable in order to evaluate the risk of infection to the exposed individual and it is also important for health authorities responsible for the surveillance and control of the epidemics and epizootics. In the last two years, for the first time, we were able to accurately describe and diagnose the rabies disease in dogs, sheep, goats, cattle, camel, donkeys, horses as well as other animal species using histopathology, FAT technology, Immunohistochemistry and molecular biology (Hailat et al 2011). These techniques were newly introduced to our laboratories and to Jordan. As rabies is one of the transboundary animal and human diseases, joint forces in different health institutions of different countries in the region are necessary. Increased attention and public awareness among farmers, veterinarians, and public health personnel is needed. The field veterinarians started to send more suspected cases to the Sera and Vaccine center in Al-Basheer Hospital for confirmation of their field diagnosis. The veterinarians and technicians in the Ministry of Health who are responsible for the rabies diagnosis use only the FAT technology as the reference technique for rabies diagnosis, and are not aware of the use of histopathology. IHC and PCR at the present time. From our recent research which we conducted on rabies we found that there is a great need for more than one test for accurate diagnosis. This led to the fact that, many veterinarians, technicians and laboratory specialists showed and expressed their needs for training and capacity development of the disease diagnosis using recent advanced techniques. In addition, through formal and informal meetings we have brought to the attention of our veterinary colleagues in the Ministry of Health and Agriculture the importance and the occurrence of rabies disease and the diagnostic capacities in Jordan and in the region. Thus, we propose to organize a consultation research workshop that will bring together some key players from the participating countries, (Algeria, Egypt, PA and Jordan), in animal and public health specialists with reference to Rabies disease. It is anticipated that more research will be conducted and focused on rabies disease with emphasis on diagnostic capacities and training, and harmonization of the diagnostic methodologies between countries in the region. We have long experience in organizing national, regional and international workshops in the field of animal agriculture. The Hashemite Kingdom of Jordan has the most advanced system of veterinary education in the region. The veterinary school at JUST consists of a highly trained faculty, with rigorous curriculum and excellent success with its graduates.

Name of submitting entity: Department of Pathology and Animal Health, Faculty of Veterinary Medicine, Jordan University of Science and Technology, Irbid-Jordan.

Contact details of submitting entity:

Contact person: Professor Nabil Q. Hailat, Professor of Pathology and Animal Health. Address: Faculty of Veterinary Medicine, Jordan University of Science and Technology. P.O. Box (3030), Irbid 22110-Jordan, Telephone: Mob; +962-7-95885219 Office; +962-2-7201000 ext. 22026 and 22016, Fax: +962-2-7095117, +962-2-7095123, Email: hailatn@just.edu.jo

Total budget of project (US\$): 68,000

Amount requested from PGTF (US\$): 23,000

Key questions:	YES	NO
1. Does the project involve at least three developing countries? (If yes, list all beneficiary/participating countries) Egypt and Palestinian Authority, Algeria and Jordan.	√	
2. Have all beneficiary/participating countries given written confirmation of interest/participation?	√	
3. Have all written confirmations of interest/participation been attached to this proposal?	√	
4. Are inputs from sources other than PGTF at least equal to funds requested from PGTF? If yes, list exact amount of other sources' funds: 45000\$	√	
5. If PGTF cannot allocate in full the resources requested, would the project still be able to be launched? If yes, list minimum PGTF input: 40,000\$	√	
6. Does the project address one of the priority areas of the Caracas Programme of Action on Economic Cooperation among Developing Countries, namely Trade, Technology, Food and Agriculture, Energy, Raw Materials, Finance, Industrialization, and Technical Cooperation among Developing Countries?	√	
7. Were the guidelines for PGTF consulted in preparing this proposal?	√	