THE ASSISTANT SECRETARY OF DEFENSE

1200 DEFENSE PENTAGON
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

JAN 0 7 2004

The Honorable Saxby Chambliss
Chairman, Subcommittee on Personnel
Committee on Armed Services
United States Senate
Washington, DC 20510-6050

Dear Mr. Chairman:

In follow up to the interim reply submitted March 27, 2003, this letter and enclosed report provide a final reply to the language contained in the report of the House Appropriations Committee accompanying the proposed Department of Defense (DoD) Appropriations Act for Fiscal Year 2003, (House Report 107-532) that DoD investigate and analyze the health care and medical research capabilities of the American University of Beirut, and in consultation with the University, report to the Committee on the benefits of a cooperative effort in health care and medical research between the DoD and the American University of Beirut.

The enclosed report has been compiled from the findings submitted by the U.S. Army Medical and Material Command team in the trip report following a visit to Beirut, Lebanon, October 13-14, 2003. It highlights potential opportunities for successful collaboration in the areas of infectious disease research and stress psychiatry. It also opines that because of the current low volume of trauma cases and significant differences in how the emergency medical system operates in Lebanon, there appears to be less potential for successful collaboration in the area of combat casualty care.

I trust you will find this report informative and helpful. Thank you for your continued interest in and support of the Military Health System.

Sincerely,

William Winkenwerder Jr.

William Winkenwerder, Jr., MD

Enclosure:
As stated

cc:
Senator Ben Nelson

REPORT TO CONGRESS CONCERNING POSSIBLE MEDICAL RESEARCH COLLABORATIONS BETWEEN THE AMERICAN UNIVERSITY OF BEIRUT AND THE U.S. DEPARTMENT OF DEFENSE

BACKGROUND

Three representatives from the U. S. Army Medical and Material Command visited American University of Beirut (AUB), Beirut, Lebanon, October 13-14, 2003, for the purpose of exploring possible medical research collaborations between the AUB and the U.S. Department of Defense (DoD) in the areas of infectious diseases, combat injuries in an urban environment, and combat stress. The team members were COL Robert Vandre, Director, U.S. Army Combat Casualty Care Research Program, COL David Vaughn, Director, DoD Military Infectious Diseases Research Program (MIDRP), CPT Melba Stetz, Staff Officer, U.S. Army Military Operational Medicine Research Program. They met with the administrative leadership of AUB (Dr. Nadim Cortas, Vice President for Medical Affairs and Dean of the Faculty of Medicine, Dr. Huda Zurayak, Dean of the Faculty of Health Sciences, Dr. Mukbil Hourani, Chief of Staff, Dr. Saleem Kiblawi, Deputy Chief of Staff, and Mr. John Rhoder, the Medical Center Director), selected clinical faculty and departmental chairmen, and toured pertinent University facilities. Their itineraries are included as an attachment at the end of this report.

AUB was established in 1866 as the Syrian Protestant College with a name change to AUB in 1920. The University is chartered in the state of New York and AUB medical school graduates can be licensed to practice in the United States as if they had attended an American university. Its medical center is the premiere medical center in the Arab Middle East, receiving patient referrals from a wide area. Joint Commission on Accreditation of Healthcare Organizations certification is expected soon. Clinical research follows the U.S. Health and Human Services guidelines and their animal research facility will soon be accredited by the American Association for Laboratory Animal Care (AALAC). Ninety percent of AUB physicians have trained in the U.S., with many returning to AUB after holding senior faculty positions at highly regarded U.S. institutions. A tour of the hospital showed it to be a very modern, well stocked facility on par with U.S. university hospitals. Emergency room and psychiatric patient care areas were under renovation and were not currently up to U.S. standards, but should be equivalent to the high quality of the rest of the hospital when renovations are completed.

Special patient populations served by the University include individuals with Otosclerosis, Hypercholesterolemia Type II, Diabetes Type II, Schizophrenia, and social and psychiatric illness due to the civil war that raged from 1975 to 1992. Homozygous genetic diseases are fairly common due to 20 per cent consanguinity within the population. Most of the medical research is clinical with a small portion animal-based. The University is currently ready to expand its basic science research program. However, financial constraints exist as the result of a failure of the Lebanese government to consistently reimburse the University for care provided to Ministry of Health patients. The AUB medical care is the most expensive in Lebanon due to its strict adherence to U.S. standards of quality control. External funding for research is limited to approximately $1 million per year. Research funding is provided by St. Jude's for their

cancer center, the Ford Foundation, the Mellon Foundation, the Welcome Trust and from drug companies for small treatment trials. The University has received grant funding from the U.S. National Science Foundation and the National Institutes of Health through collaboration with Johns Hopkins University. Approximately 50 per cent of the research funds from the Lebanese National Council for Research go to AUB. Most research grants do not include salaries for the principle investigators. The AUB has research links with several universities in Europe, Canada (McGill), and the United States. There has been no government interference with the receipt of grant funds and charitable donations. The cost of research at AUB is approximately one third of the cost in the U.S.

The local Emergency Medical System (EMS) is considerably different from that seen in the United States. The system provides transport only with little care given before reaching the hospital. First responders do not have Emergency Medical Technician (EMT) Training. There is no air evacuation system in the city and the existing ground evacuation system is splintered. These problems make it difficult to conduct pre-hospital clinical studies. Although the number of admissions for trauma was very large during the long civil war, currently the number of trauma admissions is small compared to major trauma centers in the U.S. These factors, unfortunately, make AUB unattractive as a partner for clinical trauma research.

Psychological research has been focused mainly on stressor-strain relationships (e.g., stressors such as psychosocial and psychiatric demands, mediators such as coping mechanisms and social support, and outcomes such as psychological well-being and physical health) in the Lebanese civilian population. They have also studied families, Lebanese hostages of war, and sometimes even taken longitudinal research approaches in the area of stress caused by warfare.

POTENTIAL RESEARCH COLLABORATIONS

Infectious Diseases Research Program:

While HIV/AIDS incidence is low in Lebanon (680 registered cases; 40-60 new cases per year), the MIDRP will explore a collaboration to better describe the HIV strains circulating within Lebanon and Syria. The opportunity for collaboration seems likely to be fruitful and would strengthen the DoD's assessment of the global HIV threat to assure that future vaccines will protect against all strains.

The AUB also has a long standing program for the study of antibiotic resistance among enteric pathogens that cause diarrhea. However, the program has been intermittent and limited due to insufficient funding. The Global Emerging Infections System (GEIS) of the DoD has a similar program at multiple overseas DoD laboratories. However, GEIS funding is limited and a new source of funding would need to be identified to support the AUB for this program. The AUB has made contact with Dr. Rana Hajjeh, MD, MPH, of the U.S. Centers for Disease Control and Prevention (CDC). She is stationed at the Naval Medical Research Unit 3 in Cairo, Egypt. It is unknown at this time whether CDC funding is likely.

The AUB Medical Center admits a fair number of meningococcal meningitis cases. While pathogen grouping is rarely done, they seem to have a preponderance of Group B. The DoD developed meningitis vaccines for groups A, C, Y, and W-135 and is currently working on a vaccine for Group B. Group B isolates might support the DoD program. However, the DoD program is minimally funded.

Brucellosis (species melentensis) is common among goats and sheep in Lebanon. There are in excess of 100 human cases each year (seen at AUB alone). The AUB received $12K from the World Health Organization for molecular studies. Information about this AUB program will be shared with the U.S. Army Medical Research and Materiel Command's (USAMRMC) Biological Defense Research Program. The AUB group is also considering a follow-up study on outbreaks of gastrointestinal anthrax in Lebanon in the 1960's (there was a publication in Emerging Infectious Diseases in October 2002).

Combat Casualty Care Research Program:

The AUB has many qualified trauma clinicians but is conducting only small clinical studies and virtually no preclinical studies. The potential for collaboration in this area is low since AUB would not be able to compete favorably with major U.S. trauma centers that have much greater patient care loads and U.S. universities already heavily invested in trauma research.

Military Operational Medicine Research Program:

The idea of having researchers at AUB and within DoD jointly submit a manuscript to a well-read and peer-reviewed US military journal (e.g., Military Medicine) received favorable comments on both sides. One possibility is writing a summary on the psychological and psychiatric experiences after terrorist acts against the Lebanese and against American citizens after September 11, 2001. This paper could lead to a future submission of a proposal to funding sources in order to continue this research collaboration.

SUMMARY

There is clear potential for successful collaboration between the American University of Beirut and medical elements of the Department of Defense, particularly in the areas of infectious diseases and psychological stress. Because of the current low volume of trauma cases and significant differences in how the emergency medical system operates in Lebanon, there appears to be less potential for successful collaboration in the area combat casualty care.

ITINERARY:
Monday, October 13, 2003

Time	**Col. David Vaughn** Infectious Disease Medicine & Masters in Public Health	**Col. Robert Vandre** Combat Casualty Care Dentistry & Masters in Physics	**CPT. Melba Stetz** Operational Medicine Ph. D in Research Psychology; licensed in Psychology
9:00 a.m.	Dr. Nadim Cortas V/P for Medical Affairs Dean, Faculty of Medicine Dr. Huda Zurayk Dean, Faculty of Health Sciences Dr. Saleem Kiblawi Deputy Chief of Staff	Dr. Nadim Cortas V/P for Medical Affairs Dean, Faculty of Medicine Dr. Huda Zurayk Dean, Faculty of Health Sciences Dr. Saleem Kiblawi Deputy Chief of Staff	Dr. Nadim Cortas V/P for Medical Affairs Dean, Faculty of Medicine Dr. Huda Zurayk Dean, Faculty of Health Sciences Dr. Saleem Kiblawi Deputy Chief of Staff
10:00 a.m.	Mr. John Rhoder Medical Center Director	Mr. John Rhoder Medical Center Director	Mr. John Rhoder Medical Center Director
11:00 a.m.	Dr. Abdul Rahman Bizri Infectious Diseases Specialist	Dr. Ghassan Jamaleddine Critical Care, Pulmonary	Dr. Bassem Saab Family Medicine Dr. Leila Farhoud Nursing Psychiatry Dr. Monique Shaaya Dept. of Epidemiology and Population Health
12:00 noon			
12:30 p.m.			Dr. Mounir Khani Psychiatrist
1:00 p.m.	BREAK	BREAK	BREAK
2:00 p.m.	Drs. Mukbil Hourani Chief of Staff Radiologist Saleem Kiblawi Deputy Chief of Staff Pulmonary Specialist	Drs. Mukbil Hourani Chief of Staff Radiologist Saleem Kiblawi Deputy Chief of Staff Pulmonary Specialist	Drs. Mukbil Hourani Chief of Staff Radiologist Saleem Kiblawi Deputy Chief of Staff Pulmonary Specialist
3:00 p.m.	Drs.	Drs.	Drs.

	Maurice Baroudy Acting Chairman Dept. of Anesthesiology Ghassan Kanazi Anesthesia Specialist	Maurice Baroudy Acting Chairman Dept. of Anesthesiology Ghassan Kanazi Anesthesia Specialist	Maurice Baroudy Acting Chairman Dept. of Anesthesiology Ghassan Kanazi Anesthesia Specialist
4:00 p.m.	Drs. Marwan Uwaydah Ghassan Dbaibo Infectious Diseases Specialists		

Tuesday, October 14, 2003

Time	Col. David Vaughn	Col. Robert Vandre	CPT. Melba Stetz
9:00 a.m.	Dr. Samir Atweh Neurologist Acting Chairman Department of Psychiatry	Dr. Samir Atweh Neurologist Acting Chairman Department of Psychiatry	Dr. Samir Atweh Neurologist Acting Chairman Department of Psychiatry
10:00 a.m.	Dr. Souha Kanj Sharara Infectious disease Specialist		
11:00 a.m.	Dr. Roger Sfeir Acting Chairman Department of Surgery	Dr. Roger Sfeir Acting Chairman Department of Surgery	Dr. Roger Sfeir Acting Chairman Department of Surgery
12:00 noon	Miss Gladys Mouro Assistant Hospital Director for Nursing Services	Miss Gladys Mouro Assistant Hospital Director for Nursing Services	Miss Gladys Mouro Assistant Hospital Director for Nursing Services
1:00 p.m.	BREAK	BREAK	BREAK
2:00 p.m.	Dr. Assaad Taha Orthopedic Surgeon	Dr. Assaad Taha Orthopedic Surgeon	Dr. Assaad Taha Orthopedic Surgeon
3:00 p.m.	Dr. Ghassan Jamaleddine Critical Care, Pulmonary	Dr. Ghassan Jamaleddine Critical Care, Pulmonary	Dr. Ghassan Jamaleddine Critical Care, Pulmonary
4:00 p.m.	Dr. Nadim Cortas V/P for Medical Affairs Dean, Faculty of Medicine And, other AUB Senior Management	Dr. Nadim Cortas V/P for Medical Affairs Dean, Faculty of Medicine And, other AUB SeniorManagement	Dr. Nadim Cortas V/P for Medical Affairs Dean, Faculty of Medicine And, other AUB Senior Management