



AUB American University of Beirut  
الجامعة الأميركية في بيروت



American University of Beirut  
Faculty of Agricultural  
and Food Sciences

Annual Report 2009–10







American University of Beirut  
Faculty of Agricultural  
and Food Sciences

# Annual 2009–10 Report



# Preface

The academic year 2009–10 witnessed a number of important developments at the academic, administrative, and research levels.

## **At the academic level,**

FAFS's strategic plan was revisited in a faculty retreat held on February 12, 2010. The meeting assessed the progress of FAFS, its future trajectory and plans, and approved a revised FAFS strategic plan with a new mission, vision and seven goals aligned with the university strategy. The plan included the establishment of FAFS centers of excellence on Food Security, Food Safety, Zoonoses, and Organic Farming as well the establishment of a School of Food and Nutrition within FAFS. Changing the name of the Faculty was also suggested to better reflect its present disciplines and identity. Furthermore, a strategic plan for AREC as an AUB campus in Bekaa was presented to the BOT during its visit to FAFS in May 2010.

In pursuit of accreditation of programs, the Nutrition and Food Sciences department completed a comprehensive self-study report on the Nutrition and Dietetics-Coordinated Program (NDCP) and solicited consultative services and feedback from the Commission on Accreditation for Dietetics Education (CADE).

Recruitment efforts were successful in appointing Mr. Yaser Abunnasr, Visiting Assistant Professor and Ms. Elke Berger, Visiting Lecturer at the Landscape and Ecosystem Management Department (LDEM) effective September 15, 2010.

Dr. Jad Chaaban was appointed as Assistant Dean for Academic Affairs and Dr. Imad Toufeili was appointed as FAFS Graduate Coordinator. Drs. Ammar Olabi and Mustafa Haidar were appointed as Chairpersons of the NFSC Department and the AGSC Department, respectively.

Academic recognition received by FAFS included the election of Dean Hwalla as a fellow of the International Union for Nutrition Sciences (IUNS) and an award to Dr. Musa Nimah for his lifetime of service in agriculture received from Utah State University College of Agriculture Hall of Honor Award. Furthermore, Dr. Mohamad Abiad received the Certified Packaging Professional title (CPP) from the Institute of Packaging Professionals.

During the spring semester, FAFS launched its new, Brown Bag seminars series whereby faculty members presented their current research in their various field of specialization.

### **At the administrative level,**

FAFS Advisory Board was expanded to include an additional member, Mr. Monthir Trad Al-Harithy, Chief Executive Officer of Al Rabie Saudi Food Company, and member of advisory boards of many food companies.

University support for FAFS materialized in the appointment of SETS Consulting Company for assessment of FAFS spatial needs. SETS completed a report that highlighted the need for an additional 40 percent space over the existing one, to be achieved through the rebuilding of Wing B and by space optimization in Wing A.

Fund raising efforts were enhanced through featuring the new FAFS Career Center website. The Center includes an updated database of local, regional and multinational companies, businesses, and universities in addition to students, graduates and alumni. It serves as a link among different constituents to facilitate identification of internship, recruitment and fund raising opportunities.

The AREC website was launched in December 2009, featuring a listing of AREC's teaching, research and service facilities. The website also displays AREC's newly developed logo and a "news and events" section updating AREC activities.

### **At the research level,**

Faculty research culminated in 46 refereed articles in international journals, 52 abstracts and proceedings, three books and seven book chapters. Faculty members were successful in attracting a number of research and development grants from local, regional and international Agencies that included among others, Unifert, Hariri Foundation, YMCA, ICARDA, WHO, St. Jude Children's Research Hospital, Bedson, Global Phytoganics Ltd, RUAF, IDRC, Heinrich Boll Foundation, Gruppo di Volontariato/Civil Volunteer Group (GVC), IAEA, Al Balaq' Applied University, and Efamol.

The Lebanese National Council for Scientific Research renewed support for the Associated Research Unit for Under Nutrition and Obesity in Lebanon. Negotiations are ongoing to secure funds for conducting a feasibility study to establish a center of excellence for Human Wellbeing at AREC. A new program on Food Security and Policy in the Middle East (FSPME) was initiated by FAFS and the Issam Fares Institute.

URB Visiting Scholar, Dr. Petter Watt, from the University of Brighton visited FAFS in April 2010. Dr. Watt presented his research in three lectures to FAFS faculty members and students.

Online FAFS Faculty Profiles were launched allowing for better documentation of research, teaching, and service. Better IT support was provided with the appointment of an IT administrator at the Dean's office.

The details of this positive trajectory are outlined in this report.



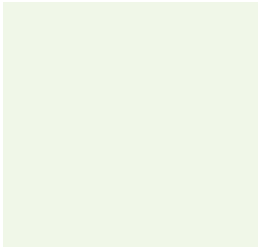
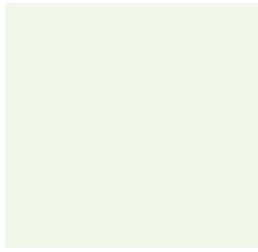
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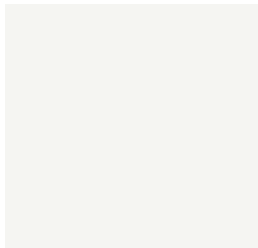
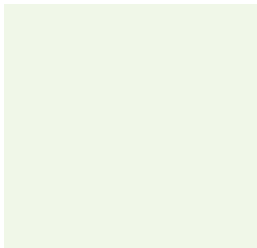
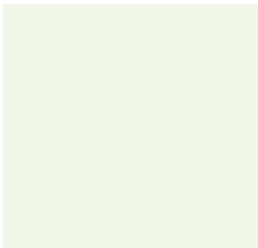
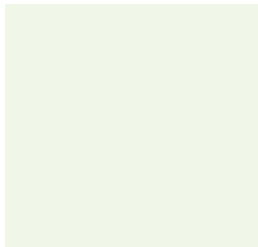


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## I. Office of the Dean



## A. Non-Academic Personnel

There are eight non-academic employees at the Dean's office as per table 1 below:

**Table 1: Non-Academic Personnel**

Name	Title
Fares, Mohamad	System Administrator
Haddad, Tharwat	Students Record Officer
Houri, Laila	Financial Officer
Khoury, Wafa	Executive Officer
Bilal, Lisa	Administrative Assistant
Hamzeh, Haifa	Executive Secretary
Koubayssi, Rabia	Assistant for Student Services
Haidar, Imad	Junior Clerk

Mr. Mohamad Fares joined FAFS on September 15, 2010 as the System Administrator.

## B. Standing Committees

### The Administrative Committee

*Prepared by: Ms. Lisa Bilal, Administrative Assistant*

#### Membership

Nahla Hwalla, Chairperson

Elie Barbour

Isam Bashour (From October 2009-February 2010)

Mustapha Haidar (From February 2010)

Ammar Olabi

Salma Talhouk

Rami Zurayk

Lisa Bilal, Secretary

#### Actions

The committee held 16 meetings throughout the academic year 2009–10 and the following actions were taken:

### **1. Accreditation and Academic Review**

The accreditation and academic review of FAFS programs were discussed and scheduled in light of the new university policy for periodic review of academic programs. The committee agreed that each department will start the periodic review process for its programs according to the following schedule:

- Nutrition and Food Sciences Department 2010–11
- Agricultural Sciences Department 2011–12
- Landscape and Ecosystem Mngement Department 2012–13
- Animal and Veterinary Sciences Department 2013–14

### **2. FAFS Strategic Plan**

Several meetings were organized and a faculty retreat was held on February 12, 2010 to discuss the achieved objectives of the 2007–12 strategy and to plan for future initiatives. The outcome was a revised faculty-approved FAFS's 2010 Strategic Plan. The plan included a new mission, vision and seven goals aligned with the university strategy. The plan included the establishment of FAFS centers of excellence on Food Security, Food Safety, Zoonoses, and Organic Farming as well the establishment of a School of Food and Nutrition within FAFS. It also suggested changing the name of the Faculty to better reflect its present disciplines and identity. A strategic plan for AREC was also developed and presented to the BOT during its visit to FAFS in May 2010.

### **3. FAFS Service to Community**

Several faculty members were nominated to serve as FAFS representatives on different committees at the Ministry of Agriculture.

### **4. Bylaws**

University and Faculty unified bylaws were revised and approved by the committee members.

### **5. Space**

The spatial needs of the Faculty were discussed in several meetings with SETS Consultants and FPDU who provided a comprehensive study taking into consideration international benchmarks and program accreditation requirements.

### **6. AREC**

AREC management and activities throughout the year were discussed and assessed.

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# The Advisory Committee

*Prepared by: Ms. Lisa Bilal, Administrative Assistant*

## Membership

Nahla Hwalla, Chairperson  
Youssef Abou Jawdeh  
Isam Bashour  
Shady Hamadeh  
Omar Obeid  
Fawwak Sleiman  
Rami Zurayk  
Lisa Bilal, Secretary

## Actions

The committee held 16 meetings throughout the academic year 2009-2010 and the following actions were taken:

### 1. *Faculty Research Leaves*

Applications for (12) short and (1) long term faculty developments, (1) junior faculty research leave, and (34) leave with pay were approved.

Periodic paid research leaves were granted to Drs. Rami Zurayk (one year) and Nadim Farajalla (first semester). The request for Dr. Jala Makhzoumi for leave without pay for the academic year 2010–11 was also approved.

### 2. *New Appointments*

- The following new full-time appointments were made: Dr. Yasser Abunnasr, as Visiting Assistant Professor and Ms. Elke Berger, as Visiting Lecturer at the LDEM department.
- Appointment of part time faculty members were as follows: (7) in the NFSC Department ; (5) in the LDEM Department and (2) in the AGSC Department.
- Two short listed candidates for the Faculty positions in Agribusiness Marketing and Management, and in Horticulture at the AGSC Dept, were invited for an interview and meeting with the faculty.
- Dr. Mustapha Haidar was nominated for the position of Chairperson of AGSC Department effective February 2010 and Dr. Elie Barbour was nominated for the position of Chairperson of AVSC Department effective October 2010.
- Dr. Yau was appointed to serve as Due Process Monitor (DPM) for promotion meetings. Drs. Haidar, Saad, and Toufeili were appointed to serve on the Expanded Advisory Committee for promotion meetings.
- Renewal contracts of full-time faculty members from various departments were reviewed and approved.

### **3. *URB Visiting Scholar***

Dr. Peter Watt, Reader, Sport and Exercise Science, University of Brighton, was invited as a URB Visiting Scholar at the NFSC Department.

### **4. *Space***

The spatial needs of the Faculty were discussed in several meetings with SETS Consultants and FPDU who provided a comprehensive study taking into consideration international benchmarks and program accreditation requirements.

### **5. *ByLaws***

University and Faculty unified bylaws were revised and approved by the committee members.

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## **Academic and Curriculum Studies Committee**

Prepared by: Ms. Rabia Koubayssi, Assistant for Student Services

### **Membership**

Nahla Hwalla, Chairperson

Elie Barbour

Isam Bashour (From 2009-February 2010)

Jad Chaaban, Undergraduate Agribusiness Coordinator

Mustafa Haidar

Zeina Kassaify

Jala Makhzoumi

Lara Nasreddine, Undergraduate ND/Coordinator

Ammar Olabi

Salma Talhouk

Registrar's Representative

Student Representative

Rabia Koubayssi (Secretary)

### **Actions**

The Committee met 10 times during the academic year 2009–10 and the following actions were taken:

#### **1. *Approved course offerings and introduction of new courses***

The Committee approved and modified spring, summer and fall course offerings. It also approved the following new courses:

- AGSC 204 "Natural Sciences for Agribusiness" (3 cr.) to be offered during fall 2010-11.
- NFSC 377 "Food Packaging" (3 cr.) to be offered during fall 2010–11.

The Committee approved replacing the course LDEM 229 “Turfgrass Culture, Machinery and Management” (3 cr.) with LDEM 263 “Landscape Appreciation” (3 cr.) during spring 2009–10.

## **2. *Approved Veterinary Sciences curriculum***

The Committee approved the modified Veterinary Sciences curriculum submitted by the AVSC Dept.

## **3. *Eligible students to go to AREC***

Twenty five students from the Agriculture program and 21 students from the Landscape program were deemed eligible to go to AREC during the spring semester of 2009–10. Classes at AREC started on March 15, 2010.

## **4. *Awarding BS degrees***

The Committee recommended to the Faculty awarding the BS degree in Nutrition and Dietetics to 49 students and the BS degree in Nutrition and Dietetics—Coordinated Program—to 17 students, the BS degree in Food Science and Management to 26 students, the BS degree in Landscape Design and Eco-Management and Diploma of *Ingenieur Agricole* to 20 students and the BS degree in in Agriculture and Diploma of *Ingenieur Agricole* to nine students for the academic year 2009–10.

## **5. *Probation***

Based on probation rules and regulations as indicated in the AUB catalogue, the Committee acted to drop four students effective February 2010, five students effective June 2010 and five students effective August 2010. Ten students were placed on strict probation effective February 2010. Two students were placed on P3 effective August 2010. One student was removed from probation effective February 2010 and five students were removed from probation effective June 2010.

## **6. *General Education Program***

- The Committee approved considering AGSC 213 “Legal Aspects of Agribusiness” and AGSC 211 “Introduction to Agricultural Issues and Policies” as social sciences for the General Education Program.
- The Committee approved considering AVSC 224 “Agricultural Microbiology”, AVSC 279 “Companion Pet Birds and Animal”, AVSC 280 “Aquarium, Marine and Farming Fish” as natural sciences for the General Education Program.

## **7. *Rules and Regulations***

The Committee recommended that the Board of Deans revise the rules and regulations concerning dropping students who register and pay tuition while



their previous semester course grades are still incomplete. The Committee also recommended that additional corrections be made to the rules and regulations of transfer requirements to FAFS.

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## **The Admissions Committee**

Prepared by: Ms. Tharwat Haddad, Student Records Officer

### **Membership**

Nahla Hwalla, Chairperson

Nadim Farajalla

Mustapha Haidar

Zeina Kassaify

Fawwak Sleiman

Imad Toufeili

Admission's Representative

Registrar's Representative

Student Representative

Tharwat Haddad, Secretary

### **Actions**

The Committee held four meetings during the academic year 2009–10 and the following actions were taken:

#### ***1. Acceptance of Transfer Students***

- The Committee accepted for the spring semester 2009–10 a total of 89 transfer students from AUB and other universities of which 33 students registered.
- The Committee accepted for the summer semester 2009–10 a total of 32 transfer students from AUB and other universities of which six students registered.
- The Committee accepted for the fall 2010–11 a total of 101 transfer students from AUB and other universities of which 31 students registered.
- The Committee recommended lowering the transfer cumulative average to Nutrition and Dietetics and Food Science and Management from 79.5 to 79.0. It also recommended including the transfer criteria under each vote.

#### ***2. Discussion of New Admission Proposal***

The Committee discussed the proposal for a new admission process and recommended that a member from the enrollment Management Task Force attend the FAFS Admissions Committee meeting to respond to inquiries on future proposals submitted.

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## The Graduate Studies Committee

Prepared by: Ms. Rabia Koubayssi, Assistant for Student Services

### Membership

Nahla Hwalla, Chairperson

Hala Ghattas

Lara Nasreddine

Ammar Olabi

Fawwak Sleiman

Imad Toufeili

Admission's Representative

Registrar's Representative

Rabia Koubayssi, Secretary

### Actions

The Committee met seven times during the academic year 2009–10 and the following actions were taken:

#### **1. Appointment of Graduate Coordinator**

Dr. Imad Toufeili was appointed as the Graduate Coordinator effective September 2010.

#### **2. Changes in rules and regulations**

The Committee introduced some changes to the graduate catalogue in the section of General University Academic Information, Rules and Regulations.

#### **3. Merging Graduate Core Courses**

Due to low enrolment in the six disciplines (Animal Science, Irrigation, Plant Science, Plant Protection, Poultry Science and Soils), the Committee felt that there is a need to merge courses and seminars in these disciplines and to come up with one list of core courses for all disciplines. The Committee also recommended that the AGSC and AVSC departments revise their core and elective courses.

#### **4. Program of study and thesis titles**

The Committee reviewed and approved the program of study and thesis titles of 37 students distributed as follows: 16 from Nutrition, 10 from Food Technology, four from Irrigation, three from Plant Protection, two from Animal Science, one from Soils and one from Plant Science.

#### **5. Acceptance of students**

The Committee accepted 111 students out of the 152 who had applied for the master's program (with some students applying for more than one major)

among departments/programs, with Nutrition attracting the largest number of applicants. Of the accepted candidates, 40 students were enrolled as follows: 17 Nutrition, 14 Food Technology, four Ecosystem Management, three Agricultural Economics, one Poultry Science and one Soils.

#### **6. *Petitions***

The Committee received and considered a total of 13 petitions from students. The majority were concerned with (1) to change status from prospective graduate to regular graduate, (2) change of thesis title, (3) transfer of courses and (4) change of major.

#### **7. *Awarding the MS degree***

The Committee recommended to the Faculty awarding the MS degree to 27 students in their respective majors: 12 in Nutrition, nine in Food Technology, two in Plant Protection, one in Agricultural Economics, one in Animal Science, one in Poultry Science, and one in Ecosystem Management.

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## **The Research Committee**

Prepared by: Dr. Yusuf Abou-Jawdah, Professor

### **Membership**

Yusuf Abou Jawdah, Chairperson

Hala Ghattas, Secretary

Nadim Farajalla

Lara Nasreddine

Ammar Olabi

### **Actions**

During the academic year 2009–10, the research committee held seven meetings and four subcommittee meetings. The following actions were taken:

#### **1. *FAFS Research Report***

The Committee completed the research report for the academic year 2008–09.

#### **2. *URB Research Proposals for 2010–11***

- The Committee reviewed and evaluated 14 research proposals submitted to URB for funding (Table 2). Two full Professors abstained from submitting research proposals to encourage Assistant Professors. The Committee also requested the evaluation of each research proposal by four reviewers.
- The Committee set the guidelines for scoring research proposals where Assistant and Associate Professors were given 5 percent and 2.5 percent additional scores, respectively, than full Professors.

- The Committee developed and deployed an electronic reviewer evaluation form.

### 3. *Constantine Rubeiz's Award*

The Committee reviewed and evaluated the research articles submitted for the Dr. Constantine Rubeiz's award and nominated four faculty members as candidates for the award.

### 4. *Review of External Research Proposals*

The Committee reviewed and approved the following five research proposals submitted by FAFS Professors:

- Two LNCSR (Lebanese National Center for Scientific Research)
- One UNRWA (United Nations Relief and Works Agency)
- One IAEA (International Atomic Energy Agency)
- One NIH (National Institutes of Health)

### 5. *Review of Research Leave Requests*

The Committee reviewed requests and submitted recommendations for periodic research leave of two faculty members.

**Table 2. Research proposals submitted to URB for funding during the academic year 2010–11.**

Principal Investigator	Proposal Title
Abiad, Mohamad	The Effect of Different Milling Conditions on Thermal Properties of Crystalline Powders
Abou-Jawdah, Yusuf	Development of Lebanese Type tomato with Multi-resistance to Tomato Yellow Leaf Curl Virus, Soilborne Pathogens and Abiotic Stress
Barbour, Elie	Molecular Adaptability of H9N2 Avian Influenza Virus to Mammalian Cells of Hamsters
Chalak, Ali	Consumer Inertia and the Role of Awareness Campaigns in Valorizing Safety and Hygiene in Food Markets of Developing Countries: The Case of Lebanon
Ghattas, Hala	Adiposity and Iron Status in Lebanese Children and Adolescents
Haidar, Mustafa	Resistance of Grasses to Dodder-Histological and Cytochemical Studies
Hamadeh, Shady	Development of an Empirical Model for the Responses of Small Ruminants to Water Deprivation in Arid Areas: a Meta-analysis Approach
Kassaify, Zeina	Food Safety Among Food Vendors in Poor Lebanese Neighborhoods: A Step Towards a Healthy Marketplace

Principal Investigator	Proposal Title
Naja, Farah	The Association between Dysfunctional Eating Behaviors and Body Image Perception across Different BMI Categories in Lebanese Young Adult Females
Nasreddine, Lara	Effect of Meal Glycemic Index on PYY, CCK and Ghrelin Postprandial Responses in Healthy Male Subjects
Obeid, Omar	Meal Pattern of Male Rats Maintained on Individual Amino Acid Supplemented Diet
Olabi, Ammar	The Effect of Roux-en-Y Gastric Bypass and Sleeve Gastrectomy Surgery on Taste Acuity and Food Preferences in Morbidly Obese Subjects
Toufeili, Imad	Determination of Some Biochemical and Antioxidant Properties of Selected Lebanese Honeys
Yau, Sui Kwong	Effects of Different Levels of Stubble Retention on Crop Growth, Development and Yield, and Soil Organic Matter Buildup Under Zero Tillage

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## The Library Committee

Prepared by: Dr. Sui-Kwong Yau, Professor

### Membership

Mohamad Abiad

Ali Chalak

Farah Naja, Secretary

Sui-Kwong Yau, Chairperson

### Actions

A meeting was held early in the academic year 2009–10 for two purposes: a) to meet with the new University Librarian and understand his plan of action, and b) to determine the priority action for the year. After the meeting, all communication was done through emails.

#### *1. Merger of the Science and Agriculture Library with the Engineering Library*

The Committee consulted with faculty members and collected their comments and suggestions regarding the merger of the Science and Agriculture Library with the Engineering Library and conceded their opinions to the University Library Committee.

## **2. *Improving Library Services***

The Committee contacted FAFS students by email for their opinions and suggestions on how to improve services provided by the Science and Agriculture Library. Responses from students were passed to the University Librarian.

## **3. *AREC Library***

The Committee solicited students studying at AREC for opinions and suggestions on how to improve services provided by the AREC Library. A request was sent to the University Librarian to provide books and magazines suggested by the students.

## **4. *University Library Committee***

The Chair of the Committee attended the monthly meetings of the University Library Committee and sent faculty members relevant information by email.

## **Recommendation**

Conduct a student survey in cooperation with the Science and Agriculture Library for feedback and suggestions on how to improve services provided by the Library.

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## **The Student Affairs Committee**

Prepared by: Dr. Ammar Olabi, Associate Professor

### **Membership**

Isam Bashour

Nadim Farajalla

Mustafa Haidar

Ammar Olabi, Chairperson

Sui Kwong Yau

Tharwat Haddad (by invitation)

Jad Tutunji, SRC representative

The Committee met several times during the period of October 1, 2009 to June 30, 2010 and discussed disciplinary actions and FAFS awards. The following recommendations were made to the Dean:

### **1. *Disciplinary Actions***

The FAFS Student Affairs Committee recommended giving a Dean's Warning to nine students. The FAFS Student Affairs Committee recommended giving a Written Reprimand to 4 students.

### **2. *FAFS Awards***

- Joanna Haidar Award  
The Committee selected **Mr. Ali Abdel Sater** for this award.
- FAFS Alumni Award  
The Committee selected **Mr. Houssam Mayassi** for this award.
- Edgcombe Award  
The Committee selected **Mr. Bassel Jammal** for this award.
- Kashadurian Award  
The Committee selected **Mr. Bassam Hamzeh** for this award.
- Dean Thomas Thuserland Prize for Graduate Excellence  
An email was sent to all faculty members to call for nominations for this award. Each professor was asked to nominate only one graduate student along with a copy of the thesis, resume and provision of justification for

making the nomination. Four nominations were considered and each thesis was sent to three reviewers.

Reviewer's comments (evaluation sheet) were used as criteria for selection/ranking. Ranking was based on the originality, design, research, clarity of presentation and importance to the field. The committee recommended **Ms. Reem Hamzeh, Food Technology**, for this award.

- Abdul Hadi Debs Award

The Committee established and recommended to the Dean's office written procedures for this award. Three nominations were considered and each manuscript was sent to three reviewers. Reviewer's comments (score sheet) were used as criteria for selection/ranking. Ranking was based on the originality, design, research, clarity of presentation and importance to field. The committee recommended **Mr. Houssam Itani, Animal Science**, for this award

- Penrose Award

An e-mail was sent to all FAFS faculty members asking them to submit nominations for this award. The Committee reviewed the records of five nominees. After reviewing them, the committee recommended to the Dean all nominees, with no order of preference:

- Dima Rachid
- Leah Moukarzel
- Diana Darwish
- Magie Tamraz
- Jessica Barbour

Candidates were asked to make short presentations about their qualifications for the award in a faculty meeting. The faculty voted for **Ms. Diana Darwish**.



## C. University Committees

### University Library Committee

Prepared by: Dr. Sui-Kwong Yau, Professor

#### Actions

- A physical merger of the Science and Agriculture Library with the Engineering Library was discussed in the University Library Committee. The new location of the combined library would be in the engineering building, according to the Campus Master Plan which was adopted in 2002. Information about the future merger was relayed to FAFS faculty members and their comments solicited. A summary of the feedback was reported to the Committee.
- Comments and suggestions of the FAFS Administrative Committee on merging the two libraries and utility of space left over after the merger were conveyed to the University Library Committee.

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### Senate Committee on General Education

Prepared by: Dr. Jad Chaaban, Assistant Professor

#### Actions

The General Education Committee held five general meetings in addition to many subcommittee working meetings. The Committee performed the following tasks:

- Learning outcomes were developed for all General Education Program areas.
- Interactive templates were developed based on the learning outcomes that will be used to describe the correlation of General Education (GE) courses to the program learning outcomes and prepare for the assessment phase.
- The GE courses' applications were reviewed. The purpose of the review was to determine the degree of correlation (Low, Average, High) of courses to the GE learning outcomes. The Committee decided that humanities and social science courses would be divided into two lists based on the degree of correlation to the GE program learning outcomes.
- The General Education Requirements section in AUB undergraduate catalogue was updated.
- All AUB programs were evaluated for compliance with the GE requirements. Non conformant programs were informed and entering students will receive updates on curricular changes made to their programs to meet GE program requirements.

- A tentative GE program assessment plan was prepared and presented to the Center for Teaching and Learning (CTL). Two members of the GE committee were trained by CTL on assessment of program learning outcomes. These two members started working to prepare the assessment matrices.

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## University Research Board (URB)

Prepared by: Dr. Yusuf Abou-Jawdah, Professor

### Actions

URB's funding policy was reviewed. Efforts were directed to make the selection process as consistent as possible among all Faculties.

- The URB recommended that priority be given to “junior” faculty members.
- Upon serious review, the URB voted to discontinue the seed grants which will be replaced by start-up funds that will be allocated by each Faculty to newly hired faculty members. Decision to be effective during the academic year 2010–11.
- The Board management of Faculty Development Grants was transferred from the URB to the AUB Faculties starting the academic year 2010–11.
- Funding of research proposals was granted on a competitive basis. FAFS faculty members received 13 research grants out of the 14 submitted.

## D. Fund Raising and Endowment Funds

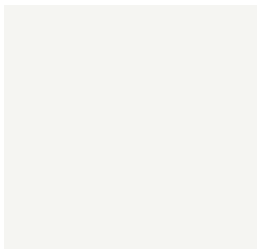
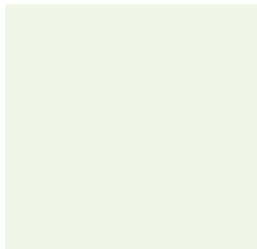
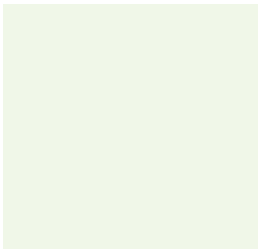
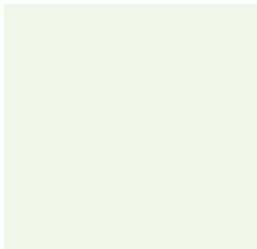
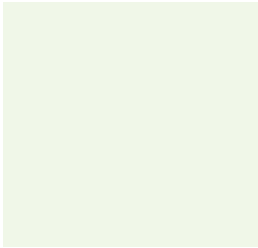
The AUB President's Club donated funds to resurface the basketball playground at AREC. AVERDA and Tanmia provided financial support to FAFS Career Center. A new fund was received from Dr. Mohamad Tajuddin for research. Unifert also presented funds towards the tuition of needy students at AREC. Mr. Amin Hijazi contributed to Dr. Abdul Hamid Hallab FAFS Dean's Hardship Fund.







## II. The Faculty



## A. Academic Matters

### Faculty Recruitment and Count

Recruitment efforts were successful in appointing Mr. Yaser Abunnasr as Visiting Assistant Professor and Ms. Elke Berger as Visiting Lecturer in the LDEM department as of September 15, 2010.

The total number of Faculty Full Time Equivalent (FTEs) for fall 2009–10 was 35.88 distributed as follows:

- FTE (Full-timers) in professorial ranks were 24 (seven Assistant, two Associate and 15 Full Professors)
- FTE (Full-timers) in non-professorial ranks were five (one Lecturer and four Instructors)
- FTE (Part-Timers) in both professorial and non-professorial ranks were 6.88 (2.7 Lecturers and 4.1 Instructors and Assistant Instructor).

**Table 3: FTE by Department**

		Department				
		AGSC	AVSC	LDEM	NFSC	Total
Full-time	Professorial Rank	8	4	4	8	24
	Lecturer and Instructor			1	4	5
Part-Time		2	0.0	3.38	1.5	6.88
<b>Total</b>		<b>10</b>	<b>4</b>	<b>8.38</b>	<b>13.5</b>	<b>35.88</b>

In addition, a total of 10 full time Research Associates, Senior Research Assistants, and Research Assistants were hired on University funds.

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### Academic Appointments and Leave With Pay

The following Faculty served as Chairs of FAFS departments:

- Elie Barbour; Animal and Veterinary Sciences department (October 1, 2007–September 30, 2010)
- Isam Bashour; Agricultural Sciences department (October 1, 2007–February 16, 2010)
- Mustafa Haidar; Agricultural Sciences department (February 17, 2010–February 16, 2013)
- Ammar Olabi; Nutrition and Food Sciences department (October 1, 2009–September 30, 2012)

- Salma Talhouk; Landscape Design and Ecosystem Management department (September 11, 2008–September 30, 2011).

Doctors Jad Chaaban and Jala Makhzoumi were on a periodic paid research leave for the first semester and Dr. Omar Obeid for a periodic paid research leave for the Spring Semester 2010. Dr. Rami Zurayk was approved for a periodic paid research leave as of June 2010 and hence resigned from his position as Associate Dean of FAFS. Dr. Jad Chaaban was appointed Assistant Dean of FAFS for Academic Affairs, effective July 26, 2010.

Academic recognition received by FAFS included the election of Dean Hwalla as a fellow of the International Union for Nutrition Sciences (IUNS) and an award to Dr. Musa Nimah for his lifetime of service in agriculture received from Utah State University College of Agriculture Hall of Honor Award. Furthermore, Dr. Mohamad Abiad received the Certified Packaging Professional title (CPP) from the Institute of Packaging Professionals.

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## Research Grants and Service Contracts

As of October 1, 2009, the University Research Board (URB) provided funds for 10 faculty members with a total budget of \$64,967, while the Lebanese National Council for Scientific Research (LNCSR) provided funds for three faculty members, including the Dean, with a total budget of \$62,200.

During 2009–10, the following faculty members received new funds from a number of local, regional and international agencies amounting to approximately \$207,377: Doctors Abou Jawdeh, Bashour, Chaaban, Farran, Haidar, Hwalla, Makhzoumi and Zurayk. A total of 46 papers were published in scientific peer reviewed journals: 12 (AGSC), 10 (AVSC), 19 (NFSC), and five (LDEM).

### ***1. FAFS Strategic Plan***

A faculty retreat for revisiting FAFS's strategic plan was held on February 12, 2010. The meeting assessed the progress of FAFS, its future trajectory, its plans, and it approved a revised FAFS strategic plan with a new mission, vision and seven goals. The plan included the establishment of FAFS centers of excellence on Food Security, Food Safety, Zoonoses, and Organic Farming as well the establishment of a school of Food and Nutrition within FAFS. Furthermore, changing the name of the Faculty was suggested to better reflect its present disciplines and identity.

### ***2. Coordinated Program in Nutrition and Dietetics (CP)***

The registration of the BS in Nutrition and Dietetics Coordinated Program at the Lebanese Ministry of Higher Education was approved in February 25, 2010.

### **3. Accreditation**

The NFSC department completed a self-study report on the CP in Nutrition and Dietetics and solicited consultative services of the Commission on Accreditation for Dietetics Education (CADE) for its review and feedback on the program.

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## **Faculty Professional Activities**

The following faculty members received short term faculty development grants, presented papers and chaired sessions in scientific meetings: Doctors Abou Jawdeh, Bashour, Chalak, Farran, Haidar, Hamadeh, Hwalla, Kassaify, Nimah, Nasreddine, Naja, Saad, and Talhouk. Moreover, Dr. Mohamad Abiad received a long term faculty development grant to conduct research at Purdue University from June 15-August 15, 2010.

**FAFS Brown Bag Seminars:** As of the Spring Semester, FAFS launched its new Brown Bag seminar series whereby three faculty members, Doctors Shady Hamadeh, Mohammad Farran and Mohamad Abiad, presented their current research work and areas of interest in their field of specialization.

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## **Faculty meetings**

Prepared by: Dr. Ali Chalak, Assistant Professor

During the period October 1, 2009 to September 30, 2010, six regular faculty meetings and two special meetings with the President and the Provost were held at FAFS in which the following actions were taken:

### **1. Admissions Criteria**

Faculty members voted unanimously to accept only students with Life Sciences and General Math background to the sophomore class in Food Science and Nutrition Dietetics, effective Fall 2010–11.

### **2. Voting of Degrees**

Faculty members voted unanimously to award degrees in Agriculture and Diploma of *Ingénieur Agricole*, Agribusiness, Nutrition and Dietetics, Food Science Management, Landscape Design and Eco-Management, and Master of Sciences for students as recommended by the representatives from each department, effective October 2009, February 2010 and June 2010 consecutively.



### **3. *Awards***

Faculty members voted on FAFS awards as follows:

- Abdul Hadi Debs Endowment Award: Mr. Hussam Itani.
- Dean Thomas Sutherland Award for graduate excellence: Ms. Reem Hamze
- Edgecombe Memorial Prize: Mr. Bassel Jammal
- Kashadurian Award: Mr. Bassam Hamze
- FAFS Alumni Award: Mr. Houssam Mayassi
- Joanna Haidar Award: Mr. Ali Abdel-Sater
- Penrose Award: Ms. Diana Darwish

### **4. *Committees Elections***

Doctors Haidar, Sleiman and Toufeili were elected by acclamation to replace Doctors Chaaban, Makhzoumi and Obeid on the General Education, Senate Academic Development and Advisory Committees respectively, the first two for the remainder of Fall 2009–10 and the third for Spring 2009–10.

### **5. *FAFS Strategic Plan***

Faculty members voted unanimously for the adoption of the new FAFS mission and vision.

Faculty members voted against changing the name of the faculty to “Faculty of Land and Food Systems.”

## B. Student Statistics

### Student Admissions and Enrollment: 2009–10

Twenty eight percent of the total admitted new undergraduate students were enrolled in the faculty for fall and spring 2009–10 (Table 4).

**Table 4: Number of New Undergraduate Applicants, Admitted and Enrolled**

Program	Applications	Admissions	Enrollment	% Enrolled out of Admitted
AGBU	317	80	37	46%
AGRI	510	148	43	29%
FSMT	366	84	23	27%
LDEM	339	90	23	26%
NTDT	464	84	14	17%
VTSC	72	31	3	10%
<b>Total</b>	<b>2068</b>	<b>517</b>	<b>143</b>	<b>28%</b>

Table 5 shows the number of second degree and transfer applicants to FAFS for the first, second and summer semesters. A total of 70 undergraduate students were enrolled during the academic year 2009–10.

**Table 5: Number of Undergraduates: Second Degree and Transfer Applicants, Admitted and Enrolled**

First Semester 2009–10				
Program	Applications	Admissions	Enrollment	% Enrolled out of Admitted
AGBU	18	17	3	18%
AGRI	41	29	8	28%
FSMT	39	18	11	61%
LDEM	26	9	4	44%
NTDT	41	14	6	43%
VTSC	5	2	1	50%
<b>Total</b>	<b>170</b>	<b>89</b>	<b>33</b>	<b>37%</b>

Second Semester 2009–10				
Program	Applications	Admissions	Enrollment	% Enrolled out of Admitted
AGBU	25	10	0	0%
AGRI	17	9	2	22%
FSMT	18	7	1	14%
LDEM	15	0	0	0%
NTDT	23	4	3	75%
VTSC	7	2	0	0%
<b>Total</b>	<b>105</b>	<b>32</b>	<b>6</b>	<b>19%</b>
Summer Session 2009–10				
Program	Applications	Admissions	Enrollment	% Enrolled out of Admitted
AGBU	57	22	2	9%
AGRI	27	16	4	25%
FSMT	54	18	2	11%
LDEM	60	12	10	83%
NTDT	75	26	13	50%
VTSC	11	7	0	0%
<b>Total</b>	<b>284</b>	<b>101</b>	<b>31</b>	<b>31%</b>

Table 6 shows the numbers and percentages of graduate students who applied to FAFS, those who were admitted and those who actually enrolled. A total of 40 graduate students were enrolled in 2009–10.

**Table 6: Number of Graduate Applications and Admissions**

Fall, Spring and Summer 2009–10					
Program	Applications	Admissions	% Admitted out of Applicants	Enrollment	% Enrolled out of Admitted
NUTR	69	48	70%	17	35%
FTCH	47	31	66%	14	45%
PLSC	2	2	100%	0	0%
PLPT	3	2	67%	0	0%
ANML	2	1	50%	0	0%
POSC	1	1	100%	1	100%
AGEC	6	6	100%	3	50%
IRRG	3	3	100%	0	0%
SOILS	3	3	100%	1	33%
ECOM	16	14	88%	4	29%
<b>Total</b>	<b>152</b>	<b>111</b>	<b>73%</b>	<b>40</b>	<b>36%</b>

Table 7 shows total student enrollment for 2009–10. The total number of students in the Faculty for the year 2009–10 was 784 of which 658 were undergraduates and 126 graduates.

**Table 7: Total Student Enrollment**

<b>Undergraduate Enrollment</b>	<b>AY 09–10</b>
UG NTDT	183
UG NTDT-CP (4 years)	17
UG FSMT	111
UG AGRI (4 years)	178
UG LDEM (4 years)	98
UG AGBS	62
UG VTSC	9
<b>Total Undergraduate</b>	<b>658</b>
<b>Graduate Enrollment</b>	
Nutrition	61
Food Technology	32
Ecosystem Management	10
Irrigation	5
Plant Protection	5
Agricultural Economics	4
Animal Science	3
Plant Science	2
Poultry Science	2
Soil and Mechanization	2
<b>Total Graduate</b>	<b>126</b>
<b>Total</b>	<b>784</b>

Tables 8 and 9 show undergraduate and graduate enrollment for the past 5 years. Undergraduate enrollment increased from 529 in 2005–06 to 658 in 2009–10. Graduate enrollment increased from 94 in 2005–2006 to 126 in 2009–10.

**Table 8: Number of Enrolled Undergraduate FAFS Students for the Last Five Academic Years**

Major	05–06	06–07	07–08	08–09	09–10
NTDT	152	145	177	187	183
AGRI (4 years)	145	137	156	201	178
FSMT	152	137	154	128	111
LDEM (4 years)	80	87	120	103	98
AGBU	n.a.	n.a.	n.a.	2	62
NTDT-CP	n.a.	n.a.	n.a.	n.a.	17
VTSC	n.a.	n.a.	n.a.	8	9
<b>Total UG</b>	<b>529</b>	<b>506</b>	<b>607</b>	<b>629</b>	<b>658</b>

**Table 9: Number of Enrolled Graduate FAFS Students for the Last Five Academic Years**

Major	05–06	06–07	07–08	08–09	09–10
ANML	6	4	2	6	61
PLSC	4	3	1	2	32
PLPT	8	8	8	5	10
SOIL	3	2	1	3	5
POSC	3	5	3	1	5
AGEC	8	6	5	3	4
IRRG	3	5	6	6	3
ECOM	9	10	3	4	2
FTCH	17	20	25	23	2
NUTR	33	32	44	53	2
<b>Total Graduate</b>	<b>94</b>	<b>95</b>	<b>98</b>	<b>106</b>	<b>126</b>

Tables 10 and 11 give the number of graduated undergraduate and graduate students for the past five years. FAFS graduated 27 more undergraduate students in 2009–10 than 2005–06. The number of masters’ graduates averaged 30 students over the last five years.

**Table 10: Number of Graduated FAFS Undergraduate Students for the Last Five Academic Years**

Major	05–06	06–07	07–08	08–09	09–10
NTDT	50	54	55	32	49
FSMT	25	23	40	52	26
LDEM	8	8	17	17	20
NTDT-CP					17
AGRI	12	11	14	8	9
AGBS					1
<b>Total UG</b>	<b>95</b>	<b>96</b>	<b>126</b>	<b>109</b>	<b>122</b>

**Table 11: Number of Graduated FAFS Graduate Students for the Last Five Academic Years**

Major	05–06	06–07	07–08	08–09	09–10
NUTR	14	6	9	12	13
FTCH	3	8	4	8	9
PLPT	1	3	4	2	2
AGEC	4	2	3	0	1
ANML	2	1	1	2	1
POSC	1	3	1	2	1
ECOM	3	6	4	1	1
PLSC	1	2	1	0	0
SOIL	0	2	0	0	0
IRRG	0	2	0	3	0
<b>Total Graduate</b>	<b>29</b>	<b>35</b>	<b>27</b>	<b>30</b>	<b>28</b>

## C. Centers and Units

### Agricultural Research and Education Center (AREC)

Prepared by: Mr. Nicolas El Haddad, AREC Farm and Facilities Manager

#### Support Staff

AREC Administration	
El-Haddad, Nicolas	AREC Farm and Facilities Manager
Yazbeck, Mirna	Secretary
Hajj Hasan, Hussein	Sales Attendant/Store Keeper
Yazbeck, Bilal	Driver/Purchaser

AREC Physical Plant	
Ghosn, Hisham	Gateman/Watchman
Hajj Hasan, Fuad	Boiler Operator/Pipe Fitter
Hajj Hasan, Ali G.	Gateman/Watchman
Hajj Hasan, Khayrieh	Maid
Hajj Hasan, Mohamad	Gateman/Watchman
Hajj Hasan, Shehadeh	Janitor
Kak, Mohamad	Gateman/Watchman
Masri, Ali	Gateman/Watchman
Mussawi, Kuzhayyah	Gateman/Watchman
Nasser, Haidar	Janitor
Rumeh, Abdel-Karim	Farm Attendant
Zein, Bassam	Mason

AREC Production	
Abou Eid, Abdallah	Field Worker
El Ali, Ibrahim	Animal Attendant
Hajj Hasan, Ahmad Kassem	Animal Attendant
Hajj Hasan, Ahmad Khalil	Creamery Operator
Hajj Hasan, Ali T.	Field Worker
Mussawi, Abbas	Machine Operator
Takesh, Nayef	Machine Operator
Yazbeck, Hussein	Animal Attendant

AREC Cafeteria	
Hamiyeh, Walid	Assistant Cook
Kayyal, Ali	Food Service Worker
Shukr, Khalil	Food Service Worker

AREC facilitated faculty teaching, research and service activities as follows:

### Teaching

- Twenty four AGR III and 21 LDEM III students continued their spring and summer sessions at AREC.
- Acquainted the students with the different practical farm operations on daily basis.
- Prepared the necessary tools for different labs.
- Assisted students in the implementation of their projects.

### Research

AREC provided assistance to faculty members and graduate students in the following research projects:

- Response of Orobanche Ramosa to Anhydrous Ammonia in Potato.
- Management of Orobanche Ramosa in Potato with Sub-lethal Doses of Glyphosate.
- Nutritional Values of De-hulled Safflower Meal for Poultry.
- Collection and Evaluation of Lebanese Wheat Landraces.
- Effects of Rotation - Comparing Barley Performance after a Previous Crop of Safflower, Chickpea, or Barley.
- Conservation Agriculture in Order to Study its Economic and Environment Importance.
- Potato Tuber Production in Controlled Environment Multispan Greenhouse.

### Services

Several workshops were carried out at AREC that aimed at community development and outreach:

- Seeds of Hope Trees for Tomorrow workshop that focused on how to start a forest tree nursery including seed collection, composting, pot types, irrigation, fertilization, and hardening the trees to be transferred to outside environments.
- Bedouin Health workshop organized by the faculty of Health Sciences.
- Conservation Agriculture workshop organized by FAFS in collaboration with GTZ organization-Germany.



- The Rehabilitation of Irrigation Channels of Baalbek four-day workshop given by four professors at FAFS). The workshop was funded by the Institute Cooperation Universitaire, Italy.
- Management of Cooperatives workshop organized by FAFS in collaboration with the Institute Cooperation Universitaire, Italy.
- Received around 100 alumni for the celebration of 1975 and 1985 classes.
- The Civil Engineering Society (CES) in partnership with the Center for Civic Engagement and Community Service (CCECS) organized their 2010 summer camp at AREC.
- Provided AUB pilot plant, dietary department, healthy basket, and Mrs. Carla Mrad's diet center with AREC produce.

### **AREC as Show Case**

New techniques in farm production and processing were adopted at AREC:

- Using drip irrigation system for field corn in order to reduce the cost.
- Direct planting of crops in around 40 percent of the total planted area due to its economic and environment importance.
- Applying fertilizers according to the results of soil analysis and crop requirements.
- Analyzing dairy products for bacteria.
- Developing a label for AREC farm products with the AREC logo and the nutritional values for each product.
- Purchased a new weather station.
- Established a new composting plant.
- Installed a new POS software for AREC sales.
- Installed multi-span greenhouses.
- Demonstrated the different systems of engines and the use of farm machinery.

# Environment and Sustainable Development Unit (ESDU)

Prepared by: Ms. Loyal Dandache, RA

## Personnel

Shady Hamadeh, ESDU Director

Diana Abi-Said, Administrative-Financial Officer

Loyal Dandache, Monitoring and Evaluation Officer

Mounir Abi-Said, Training and Organizational Development Specialist

Salwa Tohmé Tawk, Knowledge Management Officer/ Training and Organizational Development Specialist

Ziad Moussa, Capacity Development and Outreach Officer

## Summary of Accomplishments During 2009–10

- On May 21, ESDU celebrated its 10th anniversary in the Faculty of Agricultural and Food Sciences and shared its decade of regional knowledge and experience through a seminar entitled *Towards Sustainable Livelihoods in the Arab region: a Decade of Missed Opportunities?* that brought together ESDU's long standing partners FAO, IFAD and the UNCCD. In parallel, a Food and Craft Fair took place in the agricultural parking lot convening ESDU's community partners as well as a mime group who expressively acted out a silent tribute *Livelihoods at Work!*
- Outcome Mapping (OM): ESDU successfully accomplished the drafting of a three year action research proposal aimed at mainstreaming Evaluation Theory and Practice in the Middle East and North Africa (MENA) region by using OM as an entry point. This proposal was presented to the International Development Research Centre (IDRC) and a new project is in the pipeline for the upcoming thirty months. In addition, ESDU is still coordinating and orchestrating the discussion group, EvalMENANet, formed in mid 2009 with the aim of bringing together the evaluators around the MENA region to share their experience and build a common vision.
- From Seed to Table (FS&T): this second year of the FS&T project with the Resource Centres on Urban Agriculture and Food Security Foundation (RUAF ) constituted the implementation phase. ESDU, the seventh Center of the Foundation for the MENA region, coordinated the execution of the project with the regional partners in both Yemen and Jordan in an attempt to improve the urban agriculture production by analyzing and innovating in the production chain of selected products and enhancing sustainable urban farming systems. In addition, the Urban Agriculture (UA) knowledge was enhanced through the issuance of UA magazine issue 10: Linking Relief, Rehabilitation and Development - A Role for Urban Agriculture? in both hard and soft copies, as well as the UA issue 11: Building Resilient Cities and

issue 12: Waste Management for Nutrient Recovery: Options and Challenges for Urban Agriculture (issue 11 and 12 are both under press); all issues of the magazine are published on the website: [www.urbanagriculture-mena.org](http://www.urbanagriculture-mena.org) regularly managed and updated by ESDU.

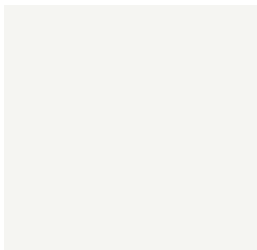
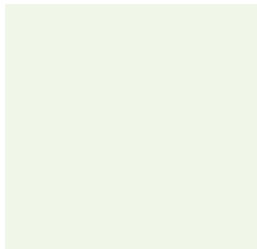
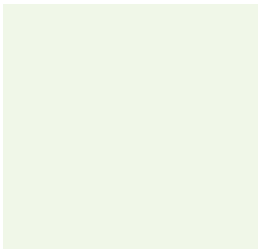
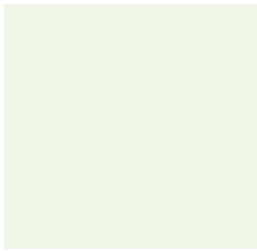
### **Strategic Challenges**

- The Rural Community Development (RCODE) master's program focuses on community and rural development issues in the context of developing nations. It aims at the regional development of people and resources to help achieve food security. RCODE will provide applied, problem-solving, field-based graduate course work, and practical and research opportunities in community development and participatory planning and management.
- Institute of Participatory Development (IPD) summer courses: IPD can be considered as an outcome of the Near East Management Training in Agriculture Program (NEMTA) that was established in partnership with the International Fund for Agricultural Development (IFAD). After hosting in March 2010 a study visit for the Yemeni National Training Unit (YNTU), the need to revive the regional spirit of Near East Management was discussed. The idea is to give summer courses in Arabic and English under the umbrella of FAFS, in different fields of development, which will be the first program of its kind in the region, whereby ESDU will help in shaping a group of trained and inspired development/change agents.





### III. Departmental Reports



# A. Department of Agricultural Sciences

Prepared by:

Dr. Mustapha Haidar, AGSC Chairperson

Ms. Sarah Ezzedine, AGSC Departmental Research Assistant

## Highlights

One of the major strengths of the AGSC department lies in the fact that it offers a well established undergraduate program constructed to prepare future generations for stewardship of the department land and agricultural resources. In addition to the agriculture program, the department offers an agribusiness program to meet the needs of today's society. This new program is developing successfully and has attracted a large number of students.

The department has successfully revised its strategic goals in line with the strategic goals of FAFS and developed achievable action plans for each goal. The department is in the process of offering a minor in Agriculture, a second BS degree in Agricultural Sciences and *Ingenieur Agricole* for Agribusiness students.

Our faculty members are leaders in cutting edge research on soil, irrigation, plant health and crop science and provide outreach service activities through training the trainers and training the Lebanese farmers at AREC and other regions of Lebanon. In addition to providing majors like agronomy, plant protection, soil, irrigation and agricultural economics, the department is also in the process of recruiting a Horticulturist and a specialist in Agribusiness Marketing and Management. Accordingly, the department reviewed the applications for the vacant positions in Horticulture and Agribusiness and recommended a short list of three candidates for each position to the Advisory Committee. Two candidates (one each in Horticulture and Agribusiness) were invited for an interview and meeting with the faculty members.

Agriculture students received special attention and were provided with an opportunity to obtain hands-on learning experiences (Experiential Learning Model) through the Agricultural Research and Educational Center in the Beqa'a plain and labs. Forty one courses were offered, 28 for undergraduates and 13 for graduates. Tutorials and theses were also offered to graduate students. Four students earned an MS degree, one in Irrigation, two in Plant Protection and one in Agricultural Economics. Published research included 12 refereed articles.

## Personnel

The AGSC department has eight full time faculty members, 11 part time faculty members, one Senior Research Assistant, one full time Research Assistant and 10 research assistants appointed on research grants. Ten graduate assistants were appointed for the first and the second semesters as well as the summer session. The department has five support staff at AREC. The below tables detail the personnel in the Agricultural Sciences department.

### Full-time Faculty

Mustapha Haidar	Professor, Chairperson
Youssef Abou Jawdeh	Professor
Isam Bashour	Professor
Jad Chaaban	Assistant Professor
Ali Chalak	Assistant Professor
Musa Nimah	Professor
Adib Saad	Professor
Sui Kwong Yau	Professor

### Part-time Faculty

Efat Abou Fakhr Hammad	Senior Lecturer
Hala Chahine	Lecturer
Lamis Chalak	Lecturer
Layal Dandache	Instructor
Hachem El Hussein	Instructor
Youssef El Khalil	Lecturer
Maria Frangieh	Instructor
Rami Ollaik	Instructor
Youssef Rouphael	Lecturer
Moatasim Sidahmed	Lecturer
Salwa Tawk	Lecturer

## Research Assistants

Lucia Hanna	Senior Research Assistant
Hana Sobh	Senior Research Assistant (on grant)
Mona Abou-Chakra	Departmental Research Assistant (March 1–May 31, 2010)
Rheam Abou-Ezze	Research Assistant (on grant)
Alia Alamedine	Departmental Research Assistant (resigned February 2010)
Manal Arab	Research Assistant (on grant)
Rani Bassil	Research Assistant (on grant)
Mabelle Chedid	Part-time Research Assistant (on grant)
Sarah Ezzedine	Departmental Research Assistant (effective June 1, 2010)
Amjad Haidar	Research Assistant (on grant)
Carla Lebbos	Research Assistant (on grant)
Nadia Naamani	Research Assistant (on grant, continuing)
Carole Najjar	Research Assistant (on grant)
Jamil Samsatly	Research Assistant (on grant)

## Graduate Assistants

Souhad Abou Zaki	Graduate Assistant 2 semesters
Manal Arab	Graduate Assistant 2 semesters
Rani Bassil	Graduate Assistant 2 semesters
Abbas Farran	Graduate Assistant 2 semesters
Pascal Harb	Graduate Assistant 2 semesters
Carla Jamous	Graduate Assistant 1 semester
Mohamad Safieddine	Graduate Assistant 2 semesters
Rami Salem	Graduate Assistant 1 semester
Jamil Samsatly	Graduate Assistant 2 semesters
Elie Shedid	Graduate Assistant 2 semesters

## Support Staff

Naji Haidar	AREC
Hatem Kayyal	AREC
Mouna Hassan	AREC
Ali Sindian	AREC
Ali Yazbek	AREC



# Teaching

## Student Enrollment in Courses

### Fall 2009–10

Course	Credits	Enrollment	Instructor(s)
AGSC 201	2	47	M. Haidar
AGSC 202	3	23	I. Bashour/M. Nimah
AGSC 211	3	30	A. Chalak
AGSC 212	3	50	Y. Khalil/M. Frangieh
AGSC 213	3	10	H. Husseini
AGSC 215	3	18	A. Lteif
AGSC 220	3	30	M. Haidar
AGSC 221	3	9	E. Abou-Fakhr Hammad
AGSC 232	3	21	Y. Abou-Jawdeh
AGSC 241	3	17	Y. Khalil / M. Frangieh
AGSC 288	3	40	R. Ollaik
AGSC 293	3	5	A. Saad
AGSC 296	1	2	A. Saad
AGSC 301	3	7	S. Hamadeh/A. Chalak
AGSC 307	3	4	S.K. Yau
AGSC 311	3	2	Y. Abou-Jawdeh
AGSC 312	3	8	I. Bashour
AGSC 328	3	5	M. Nimah

### Spring 2009–10

Course	Credits	Enrollment	Instructor(s)
AGSC 201	2	32	Adib Saad
AGSC 203	3	33	Youssef Abou Jawdeh/Sui Kwong Yau
AGSC 212	3	71	Youssef Al-Khalil/Maria Frangieh
AGSC 213	3	26	Hachem El Housseini
AGSC 222	1	24	Mustapha Haidar
AGSC 224	3	26	Youssef Roupheal/Lamis Chalak
AGSC 225	3	21	Salwa Tawk/Layal Dandash

AGSC 227	1	22	Ammar Haydar
AGSC 228	3	24	Musa Nimah
AGSC 229	3	8	Jad Chaaban
AGSC 231	3	24	Sui Kwong Yau
AGSC 253	3	7	Hala Chahine
AGSC 265	3	11	Isam Bashour
AGSC 284	3	27	Mustapha Haidar
AGSC 288	3	29	Rami Olleik
AGSC 295	3	7	Youssef Abou Jawdeh
AGSC 296	1	6	Adib Saad
AGSC 300A	1	1	Ali Chalak
AGSC 300C	3	3	Adib Saad/Jad Chaaban
AGSC 301	3	12	Shady Hamadeh / Ali Chalak
AGSC 317	3	4	Nadim Farajalla
AGSC 322	3	3	Adib Saad
AGSC 323	3	2	Youssef Abou Jawdeh
AGSC 324	3	4	Isam Bashour
AGSC 326	3	2	Musa Nimah
AGSC 376	3	4	Ali Chalak
AGSC 384	3	14	Jad Chaaban

### Summer 2009–10

Course	Credits	Enrollment	Instructor(s)
AGSC 223	2	25	Mustapha Haidar
AGSC 226	3	24	Moatasim Sidahmed
AGSC 256	1	6	Ali Chalak
AGSC 300 C	3	3	Salma Talhouk
AGSC 395	1	1	Mustapha Haidar
AGSC 399	9	2	Youssef Abou Jawdeh / Isam Bashour
AGSC 399 A	9	1	Youssef Abou Jawdeh
AGSC 399 B	9	2	Musa Nimah
AGSC 399 C	9	1	Ali Chalak

## Completed Theses

- Carla Jamous, Musa N. Nimah (Adviser), Water Use for Optimal Water Productivity, Case Study: Southern Litani Basin, Lebanon (Summer 2010).
- Rasha Talhouk, Youssef Abou Jawdeh (Adviser), Breeding Local Tomato Landraces for Combined Resistance to *Tomato Yellow Leaf Curl Virus* (TYLCV) and Three Soil-borne Pathogens. Part II (2010).
- Farah Baroudy, Youssef Abou Jawdeh (Adviser), Molecular Characterization of a Lebanese Isolate of *Beauveria* and its Efficacy for Control of *Bemisia tabaci* and *Pieris brassicae* (2010).
- Jad Dandache, Jad Chaaban (Adviser), Impacts of Agro-food Cooperatives on Agribusiness in Northern Bekaa Area (October, 2009).

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## Research Funding

### Internal Grants

Four members of the department received URB funds and three members received funds from Issam Fares Institute for Public Policy and International Affairs as below:

### University Research Board (URB)

- Abou Jawdeh, Youssef. Development of Lebanese Tomatoes Type Multi-Resistance to Tomato Yellow Leaf Curl Virus Soriborne Pathogens and Abiotic Stress.
- Bashour, Isam. Response of *Orobanche Ramosa* to Anhydrous Ammonia in Potato.
- Chalak, Ali. Modeling Consumer Indifference and Enthusiasm in the Market for Eco-labeled Food in Lebanon.
- Yau, Sui Kwong. Effects of Different Levels of Stubble Retention on Crop Growth, Development and Yield and Soil Organic Matter Buildup Under Zero Tillage Versus Conventional Tillage.

### Issam Fares Institute for Public Policy and International Affairs

- Chalak, Ali. Recycling Farm Biomass for Biogas Production: Implications for Rural Livelihoods and Greenhouse Gas Emissions.
- Chaaban, Jad. The Economics of Tobacco in Lebanon: An Estimation of the Social Costs of Tobacco Consumption.
- Chaaban, Jad. The Efficiency of Food Labeling as a Rural Development Policy: The Case of Olive Oil in Lebanon.

## Local, Regional and International Grants

Twelve members of the department were successful in attracting national and international grants as below:

- Abou Jawdeh, Youssef. Development and Improvement of Local Seed Potato Production in the Middle East. USAID.
- Abou Jawdeh, Youssef. Control of New Threatening Cucurbit-Infecting Whitefly-Transmitted Geminiviruses in the Middle-East. Al Balqa' Applied University.
- Abou Jawdeh, Youssef. Diagnostical Analysis for Candidatus Phytoplasma Phoenicium on Plant and Insect Samples. The Association of Volunteers in International Services (AVSI).
- Bashour, Isam. Ammonia as an Alternative to Methyl Bromide to Control Root-Knot Nematodes (RKN) in Vegetables. LNCSR.
- Bashour, Isam. Soil Analysis and Producing a Soil Database. FAO.
- Chaaban, Jad. Poverty of Palestinian Refugees in Lebanon: Analysis and Targeting. UNRWA.
- Chaaban, Jad. The Poverty and Equity Implications of a Rise in the Value Added Tax: A Microeconomic Simulation of Lebanon. LNCSR.
- Chaaban, Jad. Higher Education and Labor Market Outcomes in Lebanon. Hariri Foundation.
- Chaaban, Jad. Production, Consumption, Food Security: Support to Small Producers in Tyre and Bint Jbeil Districts, South Lebanon. UCODEP.
- Haidar, Mustapha. Management of Cooperatives Workshop. ICU.
- Haidar, Mustapha. Training Day at AREC. YMCA
- Yau, Sui Kwong. Early Sowing and Irrigation to Increase Crop Yield in Arid Areas. LNCSR

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## Publications

### International Refereed Journals (Corresponding/Senior author \*)

Twelve articles were published in international refereed journals by AGSC faculty members as indicated below.

- Wakim, R., **Bashour, I.\***, Nimah, M., Sidahmed, M. and Toufeili, I. Selenium Levels in Lebanese Environment. *Journal of Geochemical Exploration*, Special Issue: Selenium and Iodine. Accepted for publication (2010).
- Reid, S., **Chalak, A.\*** and Hecht, J. Determining the Optimal Investment Plan for Water Utilities: the Case of Three Valleys Water. *Water Science and Technology: Water Supply* (2010); 10(3): 367–375.

- Bouamra-Mechemache, Z. and **Chaaban, J.\*** Protected Designation of Origin Revisited. *Journal of Agricultural and Food Industrial Organization* (2010); 8(1), Article 5.
- Salti, N. and **Chaaban, J.\*** Role of Sectarianism in the Allocation of Public Expenditure in Post-War Lebanon. *International Journal of Middle East Studies* (2010); 42: 637–655.
- Salti, N. and **Chaaban, J.\*** The Poverty and Equity Implications of a Rise in the Value Added Tax. *Middle East Development Journal* (2010); 2(01): 121–138.
- Salti, N., **Chaaban, J.** and Raad, Firas. Health Equity in Lebanon: a Micro-economic Analysis. *International Journal for Equity in Health* (2010); 9:11.
- Bouamra-Mechemache, Z. and **Chaaban, J.\*** Determinants of Adoption of Protected Designation of Origin Label: Evidence from the French Brie Cheese Industry. *Journal of Agricultural Economics* (2010); 61(2): 225–239.
- **Haidar, M.\*** and Boss, W. F. Blue Light Induced Changes in Inositol 1,4,5-Trisphosphate in Dodder (*Cuscuta campestris*) Seedlings. *Weed Research* (2009); 49: 628–633.
- Temsah, M., Hanna, L. and **Saad, A.T.\*** Histological Pathogenesis of *Pseudomonas Savastanoi* on Nerium Oleander. *Journal of Plant Pathology* (2010); 92:397–403.
- **Yau, S.K.\***, and Ryan, J. Response of Rainfed Safflower to Nitrogen Under Mediterranean Conditions. *Industrial Crops and Products* (2010); 32: 318–323.
- **Yau, S.K.\***, Sidahmed, M. and Haidar, M. Conservation Versus Conventional Tillage on Performance of Three Different Crops. *Agronomy Journal* (2010); 102: 269–276.
- **Yau, S.K.** Boron Toxicity in Barley Genotypes: Effects of Pattern and Timing of Boron Application. *Communications in Soil Science and Plant Analysis* (2010); 41: 144–154.

### Articles in other Journals (Corresponding/Senior author \*)

- Al Zubaidi, A., **Bashour, I\*.**, Darwish, T. and Safieddine, M. Content of Different Forms of Potassium in Lebanese Soils. International Phosphate and Potash Institution, Bern, Switzerland, (2010).
- Alameddine, A., Al-Zubaidi, A. and **Bashour, I.\*** Preliminary Field Observations on the Response of Wheat and Barley to High Rates of K- Fertilization in Rainfed and Irrigated Regions in Lebanon. International Phosphate and Potash Institution, Bern, Switzerland (2009); 11–13.
- **Chaaban, J.** Labor Markets Performance and Migration Flows in Lebanon. *European Economy Occasional Papers*, Brussels (May 2010); 60(3): 157–200.

- **Chaaban, J.** Job Creation in the Arab Economies: Navigating through Difficult Waters. *Arab Human Development Reports Research Paper Series*, No.3, (2010). <http://www.arab-hdr.org/publications/other/ahdrps/paper03-en.pdf>

## Books

- **Abou Jawdeh, Y. and Bashour, I.** Growing Vegetables Under Protected Environment (Green House). In cooperation with Safadi Foundation under the auspices of the Ministry of Economy, Lebanon (96 pages in Arabic).

## Book Article or Chapters

- **Bashour, I.** Alternatives to Methyl Bromide in the Strawberry Production Sector in Lebanon: Application within an Integrated Management of the Strawberry Crop. Preparation of the fertilization section and review of the manual in English and Arabic (104 pages), (2010).
- **Nimah, M.N.** Water Resources. Report of the Arab Forum for Environment and Development, Chapter 5 (2008). Arab Environmental Future Challenges (English and Arabic Version), (2009).

## Abstracts and Conference Proceedings (Corresponding/Senior author \*)

- **Abou Jawdeh, Y\*.,** Abou-Fakhr, E., Dakhil, H., Sobh, H., Molino, Lova M., Vercesi, A.M. and Bianco, A.P. Survey of Almond Witches' Broom Phytoplasma (Candidatus Phytoplasma Phoenicium) and of Leafhopper Species in Infected Orchards. Abstract book of the combined meeting of Work Groups 1-4; editors: Assunta Bertaccini, Amparo Laviña and Ester Torres. Current Status and Perspectives of Phytoplasma Disease Research and Management Conference, Sitges, Spain. February 1-2 (2010).
- **Abou Jawdeh, Y.** Diagnosis and Molecular Characterization of Whitefly-transmitted Viruses which Affect Solanaceous and Cucurbit Crops in the Mediterranean Region. *Petria, Giornale di Patologia delle Piante* 20: 173–175 *Proceedings 13th Congress of the Mediterranean Phytopathological Union*, (MPU), Rome, Italy. June 20–25, (2010).
- **Abou Jawdeh, Y\*.,** Sobh, H., Haidar, A. and Samsatly, J. First report in Lebanon on Detection of Two Whitefly Transmitted Cucurbit Viruses and their Molecular Characterization. *Petria, Giornale di Patologia delle Piante* 20: 268 *Proceedings 13th Congress of the Mediterranean Phytopathological Union*, (MPU). Rome, Italy. June 20–25, (2010).
- Baroudy, F., Hanna, L., **Abou Jawdeh, Y.** and Nemer, N. Molecular Characterization of a Lebanese Isolate of Beauveria and Its Efficacy for Control of Bemisia tabaci and Pieris brassicae. *Arab Journal of Plant Protection*, (27): E-147. Beirut. Lebanon. October 26–30, (2009).
- Ezzedine, S., Nemer, N., Frerot, B. and **Abou Jawdeh, Y.** Identification of the Sex Pheromone and Molecular Characterization of the Lebanese

Cedar Processionary Moth, *Thaumetopoea libanotica*. *Arab Journal of Plant Protection*, (27): E-38. Beirut, Lebanon. October 26–30, (2009).

- Talhouk, R., Gerges, E., Dagher, R., Atamian, H., El-Mohtar, C., Sobh, H., **Abou Jawdeh, Y\***. and Maxwell, D. Development of Lebanese Type Tomato with Multiple Resistance to Tomato Yellow Leaf Curl Virus and Soilborne Pathogens. *Arab Journal of Plant Protection*, (27): E-85. Beirut, Lebanon. October 26–30, (2009).
- **Abou Jawdeh, Y.**, Eid, S., Sobh, H. and Havey, M. Cucurbit Yellow Stunting Disorder Virus a Major Threat to Cucurbits in Lebanon: Development of Serological Detection Methods and Screening for Resistance. *Arab Journal of Plant Protection*, (27): E-81. Beirut, Lebanon. October 26–30, (2009).
- Molino Lova, M., **Abou Jawdeh, Y\***., Choueiri, E., Geagea, L., Abdul-Nour, H., Geze, N., Sobh, H., El Zammar, S., El Khoury, R., Nehme, M., El Amil, R., Fakhr, R., Haidar, A., Mortada, C., Alma, A., Picciau, L., Vercesi, A., Casat, P., Perini, M., Maacaroun, R., Mahfoud, C., Mouannes, E., Sakr, W. and Bianco, P. A. Candidatus *Phytoplasma Phoenicium* in Lebanon. *Petria* 20: 694-696 Proceedings of the workshop: Fifth National Meeting on Phytoplasma Diseases. Ancona, Italy. September 23-24, (2010).
- Alameddine, A., **Bashour, I\***., Saad, A., Nimah, M. and Sidahmed, M. Effect of NH<sub>4</sub>OH on Nematode, Fusarium and Verticillium Wilt Infections in Tomato. 19th World Congress of Soil Science. Brisbane, Australia. August, 1–6, (2010).
- **Chalak, A\***. and Reid, S. Customers Inertia in Response to Risks of Water Service Failure: Insights from a Bayesian Analysis of a Water Company Choice Experiment. Presented at the Applied Environmental Economics Conference (Envecon 2010), The Royal Society, London. March 12, (2010).
- Habchy, R. and **Haidar, M.A.** Eco-Physiological Strategies for Weed Management. *Arab Journal of Plant Protection*. 27: E-108. Beirut, Lebanon. (2009).
- **Haidar, M.A** and Chatila, R. Evidence that Carotenoids and Chlorophyll are not the Chromophores of Blue Light-induced Prehaustoria in Dodder (*Cuscuta campestris*) Seedlings. Proceedings 10th Arab Congress of Plant Protection. Beirut, Lebanon. *Arab Journal of Plant Protection*. 27: W-27. (2009).
- **Haidar, M.A.** Evidence of Inositol 1, 4, 5-trisphosphate and G-proteins Regulation of Blue Light Induced Prehaustoria Development in Dodder Seedlings. Proceedings 47th Weed Science Society of America. Denver, USA. Abstract (2010).
- **Nimah, M.N**, Bashour, R. and Bashour, I. Pepper Yield and Quality as Influenced Pattern of Root Zone Wetting and Deficit Irrigation. VI International Symposium on Irrigation of Horticultural Crops (ISHS). Chili, North America. (2010).

- **Nimah, M.N.**, Bashour, R. and Bashour, I. Effects of Regular Deficit Irrigation and Root Pattern Wetting on Yield of Potato. VI International Symposium on Irrigation of Horticultural Crops (ISHS). Chili, North America. (2010).
- **Nimah, M.N.**, Bashour, R. and Rabaa, R. Comparison Between Irrigation with Saline Water and Regular Deficit Irrigation on Potato Yield. MERC Potato Symposium. Larnaca, Cyprus. (2010).
- **Nimah, M.N.** and Bashour, R. Modelling Deficit Irrigation Water Productivity as a Function of Crop Root Depth. Proceedings ASABE Annual International Meeting Section SW31 Innovation in Irrigation. Pittsburgh, Pennsylvania, USA. (2010).
- **Nimah, M.N.** and Arab, M. Solutions for Sustainable Irrigated Agriculture and Food Security, 1st Kuwait Food Security Expo. (2010).
- **Nimah, M.N.** Water Scarcity and Drought: Case Study Litani. International Conference on Water Scarcity and Drought, the Path to Climate Change Adaptation. Madrid, Spain. (2010).
- **Saad, A.\*.**, Hanna, L. and Temsah, M. First report of Blue Stain Fungi Associated with Decline of Pine Trees in Lebanon. *Phytopathology* 100:S111 (2010).
- Abou Haidar, C., **Saad, A.**, Abou Jawdeh, Y. and Bashour, I. Biological Control of Soilborne Pathogens on Cucumber under Organic Agricultural Systems. *Arab Journal of Plant Protection* 27: BC 87. October (2009).
- **Saad, A.**, Chnais, E., Hanna, L. and Kattar, M. Bacterial Wilts of Potato in Lebanon. *Arab Journal of Plant Protection* 27: B11 October (2009).
- **Saad, A.**, Bouazza, K., Hanna, L., Kattar, M. and Chnais, E. Characterization and Genome Variations among Verticillium Populations in Lebanon. *Arab Journal of Plant Protection* 27: F49. October (2009).
- Farran, M. T., **Yau, S.K.**, Dagher, N. J., Barbour, G. W. and Usayran, N.N. Feasibility of Using Mediterranean Rainfed Crops in Poultry Rations. Page 48, in Abstracts of the Second International Conference on Drought Management. Istanbul, Turkey. March 4–6, (2010).
- **Yau, S.K.**, Nimah, M. and Farran, M. Early Sowing and Early Irrigation on Barley Yield in the Bekaa. In Abstract of the 16th Science Meeting of Lebanon. Beirut, Lebanon. November 14–16, (2009).
- **Yau, S.K.** and Ryan, J. Differential Responses of Barley and Llegumes to Precipitation and Temperature in a Semi-arid, High Elevation Mediterranean Area. In Abstracts (CD format) of the International Annual Meeting of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. Pittsburgh, USA. November 1–5, (2009).



- **Yau, S.K.** and Haidar, M. Conservation Versus Conventional Tillage on Weed Growth in Barley, Chickpea and Safflower. 10th Congress of Arab Plant Protection. Beirut, Lebanon. *Arab Journal of Plant Protection*. 27: E-113. (2009). October 26–30, (2009).
- Farran, M.T., Barbour, G. W., Usayran, N. N., **Yau, S. K.**, Salem, R. and Jabbour, C. Performance of Male Broiler Chicks Fed Practical Diets Containing Graded Levels of De-hulled Extruded Safflower Meal During the Starter Period. In *Proceedings of the Second Mediterranean Summit of WPSA*, pp 507–509. Antalya, Turkey. October (2009).

### Newspaper or Magazine Articles

- **Chaaban, J.** The cost of smoking. *Now Lebanon*, May (2010).
- **Chaaban, J.** To raise or not to raise: Government plans to raise the VAT may increase poverty in Lebanon. *Now Lebanon*, April (2010).

### Submitted Manuscripts (Corresponding/Senior author \*)

- **Chalak, A.\*** and Reid, S. Customers' Inertia in Response to Risks of Water Service Failure: Insights from a Bayesian Analysis of a Water Company Choice Experiment. *Environmental and Resource Economics*, (2010).
- **Yau, S.K.\*** and Ryan, J. Differential Yield Responses of Rainfed Barley and Legumes to Precipitation and Temperature under Semi-arid Mediterranean Conditions. *Journal of Agricultural Science* (Cambridge).
- **Yau, S.K.\***, Nimah, M. and Farran, M. Early Sowing and Irrigation to Increase Barley Yields and Water Use Efficiency in Semi-arid Mediterranean Conditions. *Agricultural Water Management*.

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## Services

### Youssef Abou Jawdeh

#### *AUB*

- Member of the FAFS Advisory Committee.
- Member of the FAFS Research Committee – Chairperson.
- Member of the University Research Board Committee (URB).

#### *Others*

- Member of the Organizing and Scientific Committee of the Arab Congress of Plant Protection.
- Member of the Scientific Committee of the 13th Congress of the Mediterranean Phytopathological Union, Rome, Italy.
- Member of the Pesticide Committee at the Ministry of Agriculture.

- Member of the Vegetable Committee at the Ministry of Agriculture.
- Member of the Stone Fruit Phytoplasma Management Committee at the Ministry of Agriculture.
- Gave free consultancies on integrated pest management to numerous farmers.

## **Isam Bashour**

### ***AUB***

- Member of the FAFS Advisory Committee.
- Member of the FAFS Student Affairs Committee.
- Member of the Academic and Curriculum Committee (until February 15, 2011).
- Member of the FAFS Administrative Committee (until February 15, 2011).
- Member of the Unified Admission Committee.
- Member of K.A.S. Central Research Science Laboratory.

### ***Others***

- Member of the Fertilizer Committee at the Ministry of Agriculture.
- Member of the Residues Committee at the Ministry of Agriculture.
- Supervising the Soil Analysis Laboratory at FAFS and giving recommendations to farmers.

## **Ali Chalak**

### ***AUB***

- Member of the FAFS Library Committee.
- Faculty Assistant Marshall in the Commencement Ceremony.
- Member of the Food Security and Policy in the Middle East Steering Committee.
- Member of the Web Oversight Committee.
- Member of the FAFS Publications Committee.
- Assigned faculty member for the Program Learning Outcomes Assessment Plan for the BS in Agriculture.

### ***Others***

- Speaker in several talks on 'The General SEEA Framework; Priority Issues; Land and Soil Accounts; The Costs of Environmental Degradation and Regional Agenda at the Expert Group Meeting on Environmental Economic Accounting for the ESCWA Region, ESCWA, UN House, Beirut, Lebanon, October 14–16, 2009.

## Jad Chaaban

### *AUB*

- Member of the University Program Learning Outcomes Committee.
- Member of the Interfaculty Financial Aid Committee.
- Member of the University Committee on General Education.
- Research Program Co-Director, FAFS-IFI Food Security and Policy in the Middle East Initiative.
- Member of the Faculty of Agricultural and Food Sciences' Strategic Planning Committee.
- Coordinator of Undergraduate Studies, Agribusiness Program.
- Executive Committee elected member, Initiative for Biodiversity Studies in Arid Regions (IBSAR), AUB.
- Assistant Dean for FAFS Academic Affairs.

### *Others*

- Founding member and President, *Lebanese Economic Association*.
- Associate Researcher, GREMAQ-INRA Toulouse School of Economics, France.
- Referee Service for International Journals:
  - European Review of Agricultural Economics
  - Middle East Development Journal
  - Journal of Agricultural and Food Industrial Organization.

## Mustapha Haidar

### *AUB*

- Chairperson of Agricultural Sciences Department as of February 2010.
- FAFS Graduate Coordinator.
- Member of the FAFS Student Affairs Committee.
- Member of the FAFS Admission Committee.
- Member (for Fall 2009–10) of the University General Education Committee.

### *Others*

- Secretary and Treasurer, Arab Plant Protection Society.

## Musa Nimah

### *Others*

- Member and founder of Friends of Water in Lebanon.
- Member of the Advisory Board Rene Maawad Foundation, Beirut, Lebanon.
- Advisor to YMCA on Rural Development and Women Building Capacity.

## **Adib Saad**

### ***AUB***

- Voting member on the Faculty of Health Sciences Dean's Advisory Committee in the promotion cycle 2009–10.

### ***Others***

- External Examiner and Chairman of the Judging Committee for a PhD Thesis Defense on Wheat Common Bunt in Syria, nominated by the University of Aleppo, Aleppo, Syria.
- Chaired a Committee appointed by the National Civil Service Council to examine and recommend qualified agricultural engineers for research positions at the Lebanese Agricultural Research Institute.
- Chaired a Committee appointed by the National Civil Service Council to examine and recommend qualified candidates for positions at the Lebanese Agricultural Institute and Lebanese Secondary Agricultural Schools.
- Appointed by the Lebanese Minister of Agriculture as a member of the National Committee on Stone Fruit Trees.
- Appointed by the Lebanese Minister of Agriculture as a member of the National Committee on Pome Fruit Trees.
- Executive Secretary of the Agricultural Committee of the International Chamber of Commerce, Lebanon.
- Member of The Educational Committee of the Lebanese National Council of Economic and Social Affairs. Appointed June 2010.
- Diagnosis of plant diseases as service to growers with recommended management practices.
- Invited as a speaker, by an NGO, to lecture on: The Current and Future of Education in the Western region of Kaza Aley March 12, 2009 in Souk El Gharb.
- Secretary of the Agricultural Committee of the International Chamber of Commerce in Lebanon.

## **Sui Kwong Yau**

### ***AUB***

- Served as Due Process Monitor for the promotion cycle 2009–10.
- Member of University Library Committee.
- Member of FAFS Library Committee, Chairperson.
- Member of FAFS Student Affairs Committee.

### ***Others***

- Board member of the International Crop Science Society.
- Associate Editor of Crop Science.
- Member of the Editorial Board of Communications in Soil Science and Plant Analysis.
- Member of the Editorial Board of the on-line international journal 'Open Agriculture Journal'.
- Peer reviewer for eight manuscripts submitted to international agricultural journals.
- Gave advice on saffron production and sale to Dr. Oussama Rawdah of Faw International and to Yasmina Wakim of W Interior Design.
- Donated 25 kg of safflower seed upon request by GVC, an NGO working in South Lebanon.
- Advised a recently graduated FAFS student on low-cost no-till drills for use in his farm.

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## **Participation in Workshops and Conferences**

### **Youssef Abou Jawdeh**

- Attended the 10th Arab Congress of Plant Protection. Beirut, Lebanon; October 26–30, 2009.
- Attended three meetings of USAID workinggroups on Seed Potato Production, Cucurbit begomoviruses and Cereal viruses" in the ME region. Larnaca, Cyprus. March 20–26, 2010.
- Attended the 13th Congress of the Mediterranean Phytopathological Union, (MPU). Rome Italy. June 20–25, 2010.
- Attended the Fifth National Meeting on Phytoplasma Diseases, Ancona, Italy. September 22–23, 2010.
- Attended the Phytoplasma Disease Management: ECOST-MEETING-FA0807-230910-002679, Facoltà di Agraria, Aula Magna, via Breccie Bianche, Ancona, Italy. September 23–24, 2010.
- Attended the Biodiversity, Nutrition, Development Almond Witches' Broom Phytoplasma in Lebanon: a Potential Threat to all Mediterranean Countries. Milano, Italy. September, 25, 2010.

### **Isam Bashour**

- Attended the 19th Soil Science World Conference, Brisbane, Australia, August, 2010.

## **Ali Chalak**

- Attended the Applied Environmental Economics Conference (Envecon 2010), The Royal Society, London, March 12, 2010.
- Attended the IFAD Rural Poverty Report Regional Workshop – MENA Region, Lebanon, March 25-26, 2010.
- Attended the Packaging Conference for the Launching of LibanPack – The Lebanese Packaging Center, Moëvenpick Hotel, Beirut, Lebanon. April 25, 2010.
- Attended the Regional Workshop on Economic Incentives and Environmental Regulation in the MENA Region, Beirut. June 13-14 2010.

## **Jad Chaaban**

- Attended the Workers' Rights and Entitlements, Human Rights and Peace Club, held at AUB, April 2010.
- Faculty of Agricultural and Food Sciences, AUB, Effective Public Policies for the Marketing of Lebanese Agro-food Products.
- UNDP and American University of Beirut, Brain Drain in Lebanon.
- European Delegation Neighborhood Policy Hearings, Lebanon, The Effectiveness of Lebanon's Past Trade Policies on Exports Promotion.

## **Mustapha Haidar**

- Organized and coordinated the 10th Arab Congress of Plant Protection which was held in Beirut October 26-30, 2009 and gave three oral and poster presentations.

## **Musa Nimah**

- Participated in the workshop on Irrigation Water Management. ICARDA-JICA, May 2010.
- Attended the MERC Potato Workshop 2010. Larnaca, Cyprus. March 2010.
- Attended the workshop on Water Scarcity and Drought, the Path to Climate Change Adaptation. Madrid, Spain. February 2010.
- Attended the Agriculture and Food Security workshop, Kuwait – First Food Security Expo. April 2010.
- Promoting Conservation Agriculture in the Arab region, University of Applied Science, Weinhenstephan-Triesdorf. September 20–October 4, 2010.

## **Adib Saad**

- Participated in the 10th Arab Congress of Plant Protection. Beirut, Lebanon. October 26–30, 2009.
- Participated in the First Symposium of the Lebanese Academy of Sciences.

The Sciences in Lebanon: Present Challenges and Future Directions. Beirut Lebanon. November 6–7, 2009.

- Participated in the 46th ICARDA Board of Trustees meeting held in Lebanon, November 9, 2009.
- Participated in a Panel Discussion on Agriculture in Lebanon: Economical, Environmental and Social Considerations. International Chamber of Commerce, Lebanon, December 9, 2009.
- Participated in the Fourth Agribusiness Education Seminar on Effective Public Policies for the Marketing of Lebanese Agro-food Products, held at FAFS, AUB, February 17, 2010.

### **Sui Kwong Yau**

- Attended the 8th AUB Faculty Seminar on Teaching and Learning with Technology on May 26, 2010.
- Participated in the workshop organized by the AUB Academic Computing Center (ACC) and the Center for Teaching and Learning (CTL) on Quantitative Exams: Combating cheating with Calculated Questions by Professor Ernst Huijjer (FEA) on April 29, 2010.
- Attended the Online Exams Round-Table organized by ACC on January 14, 2010.
- Participated in the workshop on Team-based Learning by Dr. Larry Michaelsen on January 7, 2010.
- Participated in the ACC workshops on Video Use in Education, Online Student Assessment Tools and Audio Use in Education on November 24–26, 2009.
- Participated in the forum on Innovation in Teaching by Dr. Peter Hill on November 10, 2009.
- Presented a poster entitled Differential Responses of Barley and Legumes to Precipitation and Temperature in a Semi-arid, High Elevation Mediterranean Area, at the 2009 International Annual Meeting of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Pittsburgh, USA. November 1–5, 2009.
- Attended and presented a poster on Conservation Versus Conventional Tillage on Weed Growth in Barley, Chickpea and Safflower' at the 10th Congress of Arab Plant Protection, Beirut, Lebanon. October 26–30, 2009.
- Attended and presented an abstract on Early Sowing and Early Irrigation on Barley Yield in the Bekaa at the 16th Science Meeting of Lebanon, Beirut, Lebanon. November 14–16, 2009.

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## Consultancies

### Youssef Abou Jawdeh

- Gave 16 farmer workshops/field visits in cooperation with four NGOs.
- Gave two consultancies to Kuwait Scientific Institute for Research on Diagnosis of Plant Viruses.
- Gave three consultancies to private firms on Detection of Plant Viruses, and on Marker Assisted Selection for Plant Breeding.

### Isam Bashour

- Prepared Soil Map for the Eaat Region, Bekaa, Lebanon for FAO.
- Participated in preparation of Treated Waste Water and Compost Specifications, Ministry of Environment/FAO.
- Conducted analysis of 69 soil samples from Bekaa and Hasbaya for YMCA.

### Musa Nimah

- Consultant for YMCA, IRG farmer training and extension workshops.

### Adib Saad

- Provided consultancy services for UNIDO-MOE Project on MeBr Alternatives and Integrated Pest Management (IPM) of Strawberry Cultures in Lebanon.
- Gave one week lectures on Fungal and Bacterial Diseases of Pome and Stone Fruit Trees at the International Center for Advanced Mediterranean Agronomic Studies (ICAMAS), Italy. April, 2009.

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## Strategic Challenges

- The Department is in the process of revisiting its undergraduate program to align it better with faculty and university goals.
- The Department is planning to adopt a Sustainable Agriculture system in teaching, research and community services.
- The Department is planning to recruit two Assistant Professors in Entomology and Agricultural Economics to strengthen the entomology line and agribusiness program. Thus, additional space is needed to accommodate the new recruited faculty members.
- An additional, a full time research assistant needs to be recruited at the AGSC Department to assume responsibility of the soil and water analysis.
- To attract students from rural areas through scholarships.
- To create an organic center and introduce renewable energy at AREC as part of its strategic goal.



## B. Department of Animal and Veterinary Sciences

Prepared by: Dr. Elie K. Barbour, Chairperson

### Highlights

The Animal and Veterinary Sciences (AVSC) Department was active in the promotion of the BS in Veterinary Sciences program. It worked on the production of new promotion material for the BS in Veterinary Sciences. A flyer addressed to professionals in the animal private and public sectors was developed and distributed for the first time on the occasion of the World Poultry Association meeting in July 2010. Promotional pens were also produced for distribution to high school students during the visits scheduled for the Fall 2010 semester. The Department established partnership with the Beirut Ethical Treatment of Animals (BETA) organization and worked closely to prepare for the World Animal Day that was celebrated in AUB for the first time.

The Department revised and modified the curriculum of the BS in Veterinary Sciences and started its implementation for newly admitted Veterinary Sciences students.

The Department offered four new courses required for the BS in Veterinary Sciences, two of which were given by a new part-time faculty member who joined the Department in the Summer 2010. Faculty members prepared an assessment plan of the Program Learning Outcomes of the BS in Veterinary Sciences, in coordination with the assigned FAFS faculty for this task, Dr. Jad Chaaban. The Department graduated two students with MS degree

The Department was active in research and development with one project funded internally and seven projects funded by external agencies. The Department faculty members published 10 articles in international peer-reviewed journals and published four abstracts and proceedings.

## Personnel

The AVSC Department has four full time faculty members, one Senior Research Assistant and two Research Assistants out of which one is appointed on research grant. Three graduate assistants were appointed for the first and the second semesters as well as the summer session. The department has four support staff out of which three are at AREC. The below tables detail the personnel in the Animal and Veterinary Sciences department.

### Full-time Faculty

Elie K. Barbour	Chairperson
Fawwak T. Sleiman	Professor
Mohamed T. Farran	Professor
Shady K. Hamadeh	Professor

### Research Assistants

Houssam Shaib	Research Assistant
Lina Jaber	Senior Research Assistant
Nadim Rawda	Research Assistant on grant

### Graduate Assistants

Maya Saadeh
Tamar Kassabian
Zahi El-Hajj

### Support Staff

Mohammad Harb	Animal Attendant
Mohammad Zreik	Poultry Attendant
Nesta Sagherian	Senior Technician
Shady Safar	Livestock and Poultry Production Supervisor

# Teaching

## Student enrollment in courses

### Fall 09–10

Course	Credits	Enrollment	Instructor
AGSC 301	3 (50%)	7	Dr. Shadi Hamadeh
AVSC 241	3	13	Dr. Fawwak Sleiman
AVSC 243	3	26	Dr. Shady Hamadeh
AVSC 271	3	24	Drs. Fawwak Sleiman and Mohamad Farran
AVSC 275	3	32	Dr. Elie Barbour
AVSC 281	3	6	Dr. Mohamad Farran
AVSC 299	2	6	Dr. Fawwak. Sleiman / Dr. Shadi Hamadeh/Dr. E. Barbour
AVSC 305	3	3	Dr. Elie Barbour
AVSC 336	3	4	Dr. Fawwak Sleiman
AVSC 395	1	1	Dr. Elie Barbour
LDEM 203	3 (90%)	24	Dr. Shady Hamadeh
NFSC 277	3 (1 month)	69	Dr. Elie Barbour

### Spring 09–10

Course	Credits	Enrollment	Instructor
AGSC 301	3 (50%)	12	Dr. Shadi Hamadeh
AVSC 202	2	9	Dr. Shadi Hamadeh
AVSC 203	1	9	Dr. Mohamad Farran (P)/Dr. Sleiman/Dr. Barbour
AVSC 224	3	17	Dr. Elie Barbour
AVSC 226	3	25	Dr. Mohamad Farran
AVSC 242	3	16	Dr. Fawwak Sleiman/Dr. Shadi Hamadeh
AVSC 278	3	8	Dr. Fawwak Sleiman/ Dr. Mohamad farran
AVSC 299	2	2	Dr. Fawwak Sleiman
AVSC 334	3	2	Dr. Mohamad Farran

## Summer 09–10

Course	Credits	Enrollment	Instructor
AGSC 223	2	4	Dr. Mohamad Farran
AVSC 205	2	2	Dr. Chadi Tarek
AVSC 213	4	2	Dr. Chadi Tarek
AVSC 222	3	25	Dr. Fawwak Sleiman

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## Completed Theses

- Zahi El-Hajj. (ANSC). Adviser **Dr. Elie Barbour**, Studies Related to Antimicrobials and Zoonoses Potential of Proteus spp. in Chicken. June 2010.
- Houssam Itani. (ANSC). **Drs. E. Barbour, Adviser and F. Sleiman Co-adviser**, Immunities and Composition of Blood and Milk in Saanen versus Lebanese-local. February 2010.

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## Research Funding

### Internal Grants

One faculty member received URB grant as below:

***University Research Board (URB)***

Barbour, Elie. Chicken Histopathologic Lesions Induced by Multiply Passaged-N9N2 Viruses with Variable Hemagglutinin Gene Sequences.

### Local, Regional and International Grants

Seven Members of the department were successful in attracting national and international grants as below:

- Barbour, Elie. Avian Influenza Studies in Lebanon. Saint Jude Children's Research Hospital.
- Barbour, Elie. Hands-on-Training Workshop in the Field of Avian Influenza Diagnostics. Saint Jude Children's Research Hospital.
- Barbour, Elie. Efficacy of Fosbac Plus T Groeth Prometer in Mycoplasma Gallisepticum Escherchia Coli Infected Broilers in Lebanon. Bedson.
- Farran, Mohamad. Nutritional Values of De-hulled Safflower Mal for Poultry. LNCSR.
- Farran, Mohamad. Effect of a Dietary Herbal Supplement on the Performance and Carcass Quality of Broilers. Global Phytoanalytics Ltd.

- Hamadeh, Shadi. Physiological and Production Responses of Baladi and Shami Goats Subjected to Intermittent Watering during Mid-lactation. LNCSR.
- Hamadeh , Shadi. Urban Agriculture - From Seed to Table. RUAF/IDRC.

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## Publications

Ten articles in international refereed journals were published by the AVSC faculty members as indicated below.

### International Refereed Journal Articles (Corresponding/Senior author \*)

- Alwan, N., Saleh, I., Beydoun, E., **Barbour, E.**, Ghosn, N. and Harakeh, S. Resistance of *Brucella abortus* from Dairy-based Food Products Against Commonly Used Antimicrobials. *Dairy Science and Technology*; published online. (2010).
- **Barbour, E. K.\***, El-Hajj, Z., Shaib, H., Itani, H., Saadeh, M., Haidar, W., Jaber, L. and Demloj, R. Impact of Synergistic Supplements to Calcium Phosphomycin/Tylosin Tartarate on the Performance of Broilers in the Lebanon. *Veterinaria Italiana* (2010); 46:45–49.
- **Barbour, E.K.\***, Kaadi, M.S., Shaib, H.A., Kassaify, Z.G., Hamadeh, S.K., Sleiman, F.T., Jaber, L.S., Harakeh, S. and Abdelnoor, A.M. Characterization of an Emergence of Rabbit Hemorrhagic Disease in Lebanon. *Agriculture and Biology Journal of North America* (2010); (2): 113–120.
- **Barbour, E.K.\***, Tayeb, I., Shaib, H. and Ibrahim, I. Physiological and Carcass Traits in Heat-stressed Broilers Differing in Heat Acclimatization, Chemical or Feed Restriction Treatments. *Agriculture and Biology Journal of North America* (2010); 1(2): 65–74.
- **Barbour, E.K.\***, Mastori, F.A., Shaib, H.A., Sleiman, F.T., Kassaify, Z.G., Abdel Nour, A.M., Jaber, L.S. and Sabra, A.H. Comparison of the Level of Organic Contaminants in Bile and Muscle of Mullet spp. Following a Significant Oil Spill in the Eastern Mediterranean Sea. *Veterinaria Italiana* (2009); 45(3): 405–412.
- **Barbour, E.K.\***, Sabra, A.H., Shaib, H.A., Berckley, A.M., Farajalla, N.S., Zurayk, R.A., Hamadeh, S.K. and Kassaify, Z.G. Polychlorinated Biphenyl Levels and its Correlation to Size of Marine Organisms Harvested from a War-Induced Oil Spill Zone of the Eastern Mediterranean Sea. *Mediterranean Marine Science* (2009); 10(2):19–28.
- Shaib, H.A., Cochet, N., Ribiero T., Abdel Nour, A.M., Nemer, G. and **Barbour, E.K.\*** Impact of Embryonic Passaging of H9N2 Virus on Pathogenicity and Stability of HA1-amino Acid Sequence Cleavage Site. *Medical Science Monitor* (2010); 16(10): BR333–337.

- **Farran, M.T.\***, Barbour, G.W., Darwish, A.H., Usayran, N.N., Mashlab, H.H., Hruby, M. and Ashkarian, V.M. Performance and Carcass Quality of Broiler Chickens Fed a Corn-soybean Meal Diet Containing Graded Barley Levels Without or With Enzyme. *Poultry Science* (2010); 47: 34–40.
- **Farran, M.T.\***, Barbour, G.W., Usayran, N.N. and Kayouli, C. Metabolizable Energy and Amino Acid Digestibility of Decorticated Extruded Safflower Meal. *Poultry Science* (2010); 89(9):1962–6.
- Taha, N.T. and **Farran, M.T.** Comparative Study of Thigh Muscles and Bones Conformation and Some Carcass Traits of Local vs. Imported Turkey Strain. *International Journal of Poultry Science*. (2009); 8: 368–372.

### **Abstracts and conference proceedings (Corresponding/Senior author \*)**

- Dagher, N.J. and **Farran, M.T.**, 2009. Economic Impact of Poultry Production in the Developing Countries of the Mediterranean Region. *Proceedings of the Second Mediterranean Summit of WPSA*. pp 169–174.
- **Farran, M.T.**, Yau, S.K., Dagher, N.J., Barbour, G.W. and Usayran, N.N. Feasibility of Using Mediterranean Rainfed Crops in Poultry Rations. Second International Conference on Drought Management. Istanbul, Turkey; March 4–6, 2010. *Economics of Drought and Drought Preparedness in a Climate Change Context*. Book of Abstracts. P 48.
- **Farran, M.T.\***, Yau, S.K., Dagher, N.J., Barbour, G.W. and Usayran, N.N. 2010. Feasibility of Using Mediterranean Rainfed Crops in Poultry Rations. Proceeding of the Second International Conference on Drought Management: Economics of Drought and Drought Preparedness in the Mediterranean. *Options Méditerranéennes* (in press).
- **Farran, M.T.**, Barbour, G.W., Usayran, N.N., Yau, S.K., Salem, R. and Jabbour, C. Performance of Male Broiler Chicks Fed Practical Diets Containing Graded Levels of De-hulled Extruded Safflower Meal During the Starter Period. *Proceedings of the Second Mediterranean Summit of WPSA*. pp 507–509.

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## Services

### Elie Barbour

#### *AUB*

- Chairperson of the Animal and Veterinary Sciences Department.
- Member of the FAFS Administrative Committee.
- Member of the FAFS Academic and Curriculum Committee.
- Coordinator of AUB-LaSalle University Memorandum of Understanding.
- Coordinator of AUB-Szent Istvan University Memorandum of Understanding.

#### *Others*

- Editorial Board of *Veterinaria Italiana* and the *World Animal Health Organization Journals*.
- Technical advisor to Jezzine beneficiary farms (120 poultry farms, and 32 goat farms).
- Guest speaker on food safety at LBCI-Kalam el Nas - January 21, 2010.
- Initiated a partnership with USEK University discussing the different steps in writing an EU project related to Zoonoses and Food Safety.
- Investigation of different disease outbreaks in domestic animals of Lebanon.

### Mohammad Farran

#### *AUB*

- Invited Dr. Vincent Dollé to give a presentation at FAFS about the activities undertaken in IAMM-CIHEAM.

#### *Others*

- Member of Board of Administration, Lebanese National Council for Scientific Research, October 14, 2003 to date.
- Member of the Scientific Advisory Committee, CIHEAM.
- Vice President for World Poultry Science Association, Lebanese Branch.
- Member of the Lebanese Association for Advancement of Sciences.
- FAFS representative on the "Poultry Committee" at the Ministry of Agriculture.
- Adviser to the Speaker of the House on the Parliamentary Committee for Agriculture and Tourism.
- Reviewer for national research proposals.
- Helped several farmers and growers.
- As Chairman of the National Poultry Committee, held several meetings at

the Ministry of Agriculture.

- Attended several CNRS board meetings.

## **Shadi Hamadeh**

### ***AUB***

- Coordinator of the Environment and Sustainable Development Unit (ESDU).
- Member of the FAFS Advisory Committee.
- Member of the FAFS Strategic Plan Committee.

### ***Others***

- Executive Board member of RUAF.
- Coordinator of the National Training Unit under the NEMTA project supported by IFAD.

## **Fawwak Sleiman**

### ***AUB***

- Member of the FAFS Advisory Committee.
- Member of the FAFS Graduate Studies Committee.
- Member of the FAFS Academic and Curriculum Committee (for Fall term of 2009–10).
- Member of the University Academic Development Committee (for Fall Term of 2009–10).
- Member of the University Admissions Committee.
- Member of the University Disciplinary Committee.
- Member of the University Senate.
- Member of the Senate Committee on Faculty Affairs.
- Chairperson of the Senate Steering Committee.
- Presented to the Dean two proposals on Evaluation of Faculty Teaching and Faculty Services

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## **Participation in Workshops and Conferences**

### **Elie Barbour**

- Conference Coordinator and Main Speaker at the joint conference by WHO/MOH of Lebanon/Middle Eastern Universities/ International Society of Chemotherapy and Arab Alliance for the Prudent Use of Antimicrobials., November 6-7, 2009.



- Invited keynote speaker presenting four research papers at Veterinary Middle East Conference, Dubai, March 29–30, 2010.
- Chaired a session related to Animal Welfare and Behavior at the Veterinary Middle East conference, Dubai, March 31, 2010.
- Attended and presented a scientific paper entitled: Performance and Reduction of Condemnation Lesions in Broilers Subjected to Synergistic Supplements, at the American Association of Avian Pathologists (AAAP/AVMA 2010), Georgia World Congress Center, Atlanta, Georgia, August 1–4, 2010.

### **Mohammad Farran**

- Attended and presented a paper entitled: Performance of Male Broiler Chicks Fed Practical Diets Containing Graded Levels of De-hulled Extruded Safflower Meal During the Starter Period, at the Second WPSA Summit, Antalya, Turkey; October 2009.
- Attended and presented a paper entitled: Economic Impact of Poultry Production in the Developing Countries of the Mediterranean Region, at the Second WPSA Summit, Antalya, Turkey; October 2009.
- Attended and presented to poultry professionals, in the annual meeting of WPSA Lebanese Branch, a lecture on Feed Formulation Based on Digestible Amino Acids, July 10, 2010. Also in the same meeting, made a presentation about the veterinary science program and distributed brochures and bookmarks about the program.
- Attended the XIIIth European Poultry Conference, Tours, France; August 23–27, and presented a poster entitled Production and Egg Quality Parameters of Laying Hens Fed De-hulled Safflower Meal in Partial or Total Substitution of Soybean Meal. The paper will appear in the proceedings of the conference.

### **Shadi Hamadeh**

- Attended RUAF executive board meeting, Netherlands. November 24–27, 2009.
- Invited speaker to an expert group meeting on adopting a Sustainable Livelihood Approach in the ESCWA Region, ESCWA, Beirut, Lebanon. December, 21, 2009.
- Attended and presented a paper entitled: Adapting a European Sustainability Model to a Local Context in Semi Arid Areas of Lebanon, at the 9th European IFSA Symposium. Vienna, Austria. July 4–7, 2010.
- Organized and presented at the ESDU 10th anniversary conference under the theme: Towards Sustainable Rural Livelihoods in the Arab region: A Decade of Mixed Opportunities? May 21, 2010.

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## Strategic Challenges

- The AVSC Department is still facing the challenge of securing the needed infrastructure for the new BS in Veterinary Sciences in terms of laboratories, special equipment, treatment and surgical rooms, live animal specimens, and most important the need for the renovation of one old poultry barn at AREC to contain the new laboratories and purchase high-end equipment.
- The Department has to attract more undergraduate students to the new BS program and for that purpose more promotion activities are considered as well as securing scholarships. Strategic partnerships with NGOs should be activated to highlight the role of the Department in serving Animal Welfare through education. Similarly, the Department has to attract more graduate students.
- The Department is still working to establish a Zoonoses center as part of its strategic plan.

# C. Department of Landscape Design and Ecosystem Management

Prepared by:

Dr. Salma Talhouk, Chairperson

Ms. Nadine Modad, LDEM Departmental Research Assistant

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## Highlights

### **New space for the department**

The space renovations and relocations that were initiated in 2008 to consolidate faculty, student and staff of the department into a single location continued during the whole year and were officially completed during Spring 2010. Following these changes, the physical space allocated to the department consists of faculty offices, a teaching lab, a department office and a defined teaching and demonstration space in the greenhouse area.

### **Learning environment for students**

The department has initiated efforts to establish demonstration and hands-on facilities. Accordingly, efforts have been started to establish native plant garden, and an outdoor landscape exhibition area. The Department also invited renowned landscape architect Vladimir Djurovic to give a talk to LDEM faculty and students. Furthermore, to encourage student participation in international forums, the department coordinated student participation in the annual “Workshop\_atelier/terrain” (WAT) of the UNESCO Chair in Landscape and Environmental Design for the University of Montreal held in Kobe, Japan in November 2009.

### **Community outreach**

The department remained active in promoting community outreach by organizing regular plant sales events, such as the Christmas plant sale and the Spring plant sale. Following the memorandum of understanding with the Center for Civic Engagement and Community Service (CCECS), the department was involved in two community-based projects which faculty and students and recent graduates of the program contributed to landscape design interventions, both of which were implemented under the coordination of CCECS.

### **Strategic plan**

During 2009–10, the department held four strategic plan meetings and developed a department strategic plan which defined the department’s strategic goals, actions of the department to achieve these goals and the key performance indicators (KPIs) to measure them. Furthermore, to move forward with the program and course learning

outcomes efforts, the department held a retreat attended by all full-time and part-time faculty to discuss the learning outcomes of the program and the various courses and years.

### **New Faculty**

In a continuous effort to expand the faculty body in the department, the department re-advertised the Landscape Design position and went through the process of short-listing candidates and recommended the appointment of Mr. Yaser Abunnasr. To enrich student exposure, the department hired Ms. Elke Berger as a professional consultant for two weeks to participate in the Final Year Studio.

### **Personnel**

The LDEM department has five full time faculty members, 11 part time faculty members and five research assistants out of which three are appointed on research grants. Five graduate assistants were appointed for the spring and summer semesters. The department has one support staff. The below tables detail the personnel in the Landscape Design and Ecosystem Mangement department.

#### **Full-time Faculty**

Salma N Talhouk	Professor; Chairperson and Director of IBSAR
Nadim Farajalla	Associate Professor
Jala Makhzoumi	Professor
Julie Weltzien	Lecturer
Rami Zurayk	Professor; Director of IGESP

#### **Part-time Faculty**

Nora Aridi	Instructor
George Battikha	Lecturer
Bachar El-Amine	Lecturer
Reem Fayyad	Assistant Instructor
Ammar Haidar	Instructor
Maha Issa	Instructor
Nahida Khalil	Lecturer
Wissam Melhem	Instructor
Rabih Shibli	Instructor
Rasha Talhouk	Assistant Instructor
Lama Yasmin Tawk	Assistant Instructor

## Research Assistants

Nadine Modad	Departmental Research Assistant
Eman Amro	Full-time Research Assistant (on grant)
Monika Fabian	Full-time Research Assistant (greenhouse)
Leila Solh	Full-time Research Assistant (on grant)
Sarah Yassine	Full-time Research Assistant (on grant)

## Graduate Assistants

Yara Daou	Ecosystem Management
Dima Fay	Ecosystem Management
Bassam Hamzeh	Ecosystem Management
Noura Hazim	Ecosystem Management
Carol Itani	Ecosystem Management

## Support Staff

Elias Abi Samra	Greenhouse Technician
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## Visiting Scholars

Ms. Elke Berger, Landscape Architect and founder of Studio B in Munich, Germany, was invited to contribute to teaching during the Fall and Spring terms of the academic year 2009–10. Ms. Berger’s participated in the teaching and project reviews of 4th year landscape design studio– LDEM 241 (two weeks during Fall 2009–10) and LDEM 242 (two weeks during Spring 2009–10).

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## Teaching

### Courses Offered

During the academic year 2009–10, the department offered a total of 24 undergraduate courses and two graduate courses. Among the undergraduate courses (9) were design studios and (17) were lecture based courses.

### New Courses

During the Spring term 2009–10 and based on the department’s discussions regarding the removal of some of the existing courses and the introduction of new courses to the curriculum, the department replaced the LDEM 229 course “Turfgrass, cultivation and machinery” usually offered at AREC with LDEM 263 “Landscape Appreciation”. This course was approved by the Academic and Curriculum Committee (ACC) in the Summer term 2008–09.

## Student Enrollment in Courses

### Fall 2009–10

Course	Credits	Enrollment	Instructor(s)
LDEM 200	4	38	W. Melhem
LDEM 201	3	16	J. Weltzien
LDEM 203	3	24	S. Hamadeh/ J. Weltzien
LDEM 204	6	21	J. Weltzien(P)/ N. Farajalla/ G. Battikha/N. Aridi
LDEM 209	4	27	S. Talhouk/M. Fabian (lab)
LDEM 215	3	16	E. Abou Fakhr/ M. Haidar/ A. Saad (P)
LDEM 216	6	20	M. Issa/L. Tawk/R. Zurayk
LDEM 217	3	21	R. Zurayk(P)/ R. Talhouk (lab)
LDEM 241	6	22	/ R. Shibli (P)/ B. El Amine/ S. Talhouk
LDEM 245	3	23	N. Farajalla
LDEM 290	3	21	N. Farajalla/ G. Battikha
LDEM 295	1	23	G. Battikha

### Spring 2009–10

Course	Credits	Enrollment	Instructor(s)
LDEM 202	6	30	M. Issa/ J. Weltzien
LDEM 211	3	33	S.Talhouk(P)/ M. Fabian (lab)
LDEM 212	3	16	George Battikha
LDEM 227	3	21	A. Saad (P)/ E. Abou Fakhr/ M. Haidar/ L. Hanna (lab)
LDEM 228	6	21	J. Makhzoumi (P)/ T. Ashton/ V. Resente
LDEM 230	3	21	N. Farajalla
LDEM 242	6	21	Rabih Shibli/ Bachar El-Amine/ N. Khalil
LDEM 246	6	20	W. Melhem (P)/
LDEM 263	3	21	J. Weltzien(P)/M. Yazbek
LDEM 265	3	21	G. Battikha (P)/L. Tawk
LDEM 296	1	21	N. Farajalla
LDEM 630	3	14	R. Zurayk
LDEM 633	3	6	J. Makhzoumi

## Summer 2009–10

Course	Credits	Enrollment	Instructor(s)
LDEM 250	3	30	W. Melhem (P)/ R. Fayyad

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## Completed Theses

None

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## Research Funding

### Internal Grants

One faculty member received a research grant from Issam Fares Institute for Public Policy and International Affairs as below:

*Issam Fares Institute for Public Policy and International Affairs*

Zurayk, Rami. Sustainable Bedouin Livelihoods in a Changing World: Surviving Droughts, Policies and Markets (Phase II). Duration: March 15–October 5, 2010. Heinrich Böll Foundation, Germany.

### Local, Regional and International Grants

Five faculty members were successful in attracting national and international grants as below:

- Makhzoumi, Jala. From Sustainable Past to Empowering Future: Greening Beirut Project. Duration: November 2009–October 2010. Heinrich Böll Foundation, Germany.
- Talhouk, Salma. Seeds of Hope Trees for Tomorrow, a Participatory ex situ Conservation Approach. Donor: Individuals and institutions. Duration: 2007–10. IBSAR.
- Talhouk, Salma. Benefits, Risks, Viability and Resilience of an Ecosystem Food and Health Model in Rural Lebanon. Duration: 2009–12. International Development Research Center, University of Ottawa, Canada (IDRC) and Ecohealth program IBSAR-AUB.
- Zurayk, Rami. Environmental Upgrading of Bint Jbeil District Area and Support to the Economical Revitalizing in Agricultural Sector. Duration: October 1, 2009–June 15, 2010 (Open). GVC, Italy (Gruppo di Volontariato Civile/Civil Volunteer Group).
- Zurayk, Rami. Preparation of two papers for the regional conference on Achieving Food Security in the Arab World in Doha, Qatar during June 2009. February 1, 2009–Open. ICARDA.

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## Publications

Seven articles in international referred journals were published by the LDEM faculty members as indicated below.

### International Refereed Journals (\*Corresponding/Senior author)

- Chmeitilly, H., Talhouk, S.N. and **Makhzoumi, J\***. Landscape Approach to the Conservation of Floral Diversity in Mediterranean Urban Coastal Landscapes: Beirut Seafront. *International Journal of Environmental Studies*. (2009); 66 (2), special issue on Women Scientists in the Middle East and North Africa: 167–177.
- Jeambey, Z., Johns, T., **Talhouk, S.N.** and Batal, M. Perceived Health and Medicinal Properties of Six Species of Wild Edible Plants in North-east Lebanon. *Public Health Nutrition*. (2009); 12 (10): 1902–1911.
- Barbour, E., Sabra, A., Shaib, H., Berckley, A., Farajalla, N., **Zurayk, R.\*** and Kassaiyf, Z. Polychlorinated Biphenyl Levels and its Correlation to Size of Marine Organisms Harvested from a War-Induced Oil Spill Zone of the Eastern Mediterranean Sea. *Mediterranean Marine Science* (2009); 10 (2): 19–28.
- Kassaiyf, Z., El Hajj, R., Hamadeh, S., **Zurayk, R.\*** and Barbour, E. Impact of Oil Spill in the Mediterranean Sea on Biodiversified Bacteria in Oysters. *Journal of Coastal Research*. (2009); 25 (2): 469–473.
- El Azar, G., Habib, R.R., Mahfoud, Z., El Fadel, M., Jurdi, M., **Zurayk, R.\*** and Nuwayhid, I. Effect of Women’s Perceptions and Household Practices on Children’s Waterborne Illness in a Low Income Community. *EcoHealth*. DOI: 10.1007/s10393-009-0239-8.
- **Zurayk, R.\***, El Fadel, M. and Nuwayhid, I. The Interfaculty Graduate Environmental Sciences Program of the American University of Beirut: an ESD Initiative in the Arab World. *International Review of Education*. (2010); (56) 299–314.
- **Zurayk, R.** Global Views of Local Food Systems: Reflections on the Growing Worldwide Local Food Movement. *Journal of Agriculture, Food Systems, and Community Development*. (2010); 1 (1): 30.

### Articles in other Journals

- **Makhzoumi, J.** Unfolding Landscape in a Lebanese Village: Rural Heritage in a Globalizing World. *International Journal of Heritage Studies* (2009); 15(4): 317–337.

### Books

- **Makhzoumi, J.** *Horizons 101*. Dar Omboz, Beirut (2010).
- **Makhzoumi, J.** Marginal Landscapes, Marginalized Rural Communities: Sustainable Postwar Recovery in Southern Lebanon. In H Al Harithy (ed)



Lessons in Postwar Reconstruction: Case Studies from Lebanon in the Aftermath of the 2006 War. Routledge, London (2010): 127–157.

### **Book Article or Chapters**

- El Masri, R., **Zurayk, R.\*** and Kodsı, E. Environment for Development and Human Well-Being. In: The Environment Outlook for the Arab Region: Environment for Development and Human Well-being report. (Arabic version, English forthcoming), (2010): 31–55. ISBN 978-92-807-3055-5.
- **Zurayk, R.\*** and Talhouk, S.N. Plants and People: Ethnobotanical Knowledge from Lebanon. AUB IBSAR and Cooperazione Italiana. (2010). ISBN 978-9953-9019-9-2.
- **Zurayk, R.\*** (Editor and Translator) and Hamra Abu Eid (Compiler). 2010. Tales from the Badia: Bedouin Folk Tales From Lebanon. Heirich Boell Foundation (150 pages), (2010). ISBN 978-9-95301-643-6.

### **Abstracts and Conference Proceedings (Corresponding/Senior author \*)**

- **Farajalla, N.S.\***, Ziadeh, R. and Nimah, M. Drought Frequency under a Changing Climate in the Eastern Mediterranean: the Beka'a Valley, Lebanon. *Geophysical Research Abstracts*, (10). (2010).
- **Talhouk, S.N.** Ex situ Conservation Options in Lebanon (Abstract). World Congress for Middle Eastern Studies (WOCMES). Barcelona, Spain. July 19–24, (2010).
- Myntti, C., **Zurayk, R.\*** and Mabsout, M. 2009. Beyond the Walls: The American University of Beirut Engages its Communities. Arab Regional Conference in Higher Education (ARCHE +10); Cairo, Egypt. May 31–June 2, (2009).
- **Zurayk, R.\*** and Salman, N. 2009. Jalons pour un Inventaire Meditteraneen: Elements de Discussions. International Seminar on Compiling a Food Heritage Inventory: Existing Knowledge, Methods and Perspectives. Institut Europeen d'Histoire et des cultures de l'Alimentation. Université François Rabelais de Tours, France. November 30–December 1, (2009).
- **Zurayk, R.\*** From Akkar to Amel: A Landscape Approach to Documenting and Valorizing Lebanon's Food Heritage. International Seminar on Compiling a Food Heritage Inventory: Existing Knowledge, Methods and Perspectives. Institut Europeen d'Histoire et des Cultures de l'Alimentation (Abstract). Université François Rabelais de Tours, France. Novembre 30-December 1, (2009).
- **Zurayk, R.\*** and Abu Ghyda, T. The Lebanese Terroir: A Challenge of Quality. UNESCO conference on Localizing Products: A Sustainable Approach for Natural and Cultural Diversity in the South. Paris, France. June 9–11, (2009).

- **Zurayk, R\***; Tell, T. and Abu Eid, H. From Pasture to Pasteurized: Landscape Fragmentation, Livelihood and Food Economy of Bedouins in Jordan and Lebanon. Paper presented at the International Conference on The Role of Bedouin and Tribes in the Formation of the Modern State in the Arab East: Historical and Contemporary Perspectives. Orient-Institut. Beirut, Lebanon. June 10–11, (2010).

### Newspaper or Magazine Articles

- **Farajalla, N.** Helped review and was interviewed for a documentary on Climate Change. New TV, April (2010).
- Myntti, C., **Zurayk, R.\*** and Mabsout, M. Beyond the Walls: The American University of Beirut Engages its Communities. Voices on Arab Philanthropy and Civic Engagement. Working Paper number 3(Arabic and English). American University in Cairo (2009).

### Manuscripts (Corresponding/Senior author \*)

- **Farajalla, N.S.\***, Marktanner, M., Dagher, L. and Zgheib, P.H. The National Economic, Environment and Development Studies (NEEDS) for Climate Change Project – Lebanon. Report prepared and submitted to the UNFCCC and the Ministry of Environment. (2010).

## Services

### Nadim Farajalla

#### *AUB*

- Faculty Director of the Research and Policy Forum on Climate Change and Environment in the Arab World at the Issam Fares Institute for Public Policy and International Affairs (IFI) American University of Beirut.
- Chairperson of the University's Student Affairs Committee.
- Member of the Advisory Committee for the University's Center of Teaching and Learning.
- Member of the FAFS Admissions Committee.
- Member of the FAFS Research Committee.
- Member of the FAFS Student Affairs Committee.

#### *Others*

- Member of the Lebanese delegation to the Climate Change conference in Copenhagen, December 2009.
- Lectured to several civic organizations and local clubs on climate change, the environment and water resources.

## **Jala Makhzoumi**

### ***AUB***

- External Member for the FAS Promotion Committee.
- Executive board member, IBSAR.

## **Salma Talhouk**

### ***AUB***

- Chairperson, Department of Landscape Design and Ecosystem Management (LDEM), October 2008–present.
- Director of IBSAR (Initiative for Biodiversity Studies in Arid Regions), 2003–June 2010.
- Faculty Score Card Coordinator.
- FAFS representative member of the University Learning Outcome Coordination Committee.
- Member of IBDA Student Forum Organizing Committee.

### ***Others***

- The LORAX (Laou) by Dr. Suess, Arabic translation. Asala Publishing. 2010.

## **Rami Zurayk**

### ***AUB***

- FAFS Associate Dean until June 2010.
- Director, Interfaculty Graduate Environmental Sciences Program (IGESP) (June 2000 to present).
- Chair of the Faculty Advisory Board. The Issam Fares Policy Institute (2007 to present).
- Member of the University Senate.
- Member of the Teaching Excellence Award Committee.
- Member of the Strategic Planning Committee.
- Owner's Representative, Healthy Basket SARL.

### ***Others***

- Advisory Board Member for: Journal of Agriculture, Food Systems, and Community Development.
- Editorial Board Member for: Biodiversitas and Journal of Biological Diversity.
- Reviewing Board Members for Journal of Horticulture and Forestry.
- Journal referee (2009) for Lebanese Science Journal and International Review of Education.

## **Julie Weltzien**

### ***AUB***

- Member at the AUB Choral Society.
- UNESCO Student exchange program Coordinator.
- LDEM Yearbook and final exhibition Coordination.
- Project coordinator for the Karm El Zaytoun Neighborhood Development Project (LDEM – CCECS collaboration).
- Search committee for director of music at the Fine Arts Department.
- Organized student performance “Human Sprawl.”

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## **Participation in Workshops and Conferences**

### **Nadim Farajalla**

- Attended and presented at a workshop entitled “Climate Adaptation in the MENA: Challenges and Opportunities” organized by the Dubai Initiative - Belfer Center for Science and International Affairs and the Harvard Kennedy School, Cambridge, MA. May 24, 2010.
- Conducted a three-day workshop “Media as Partners in Education for Sustainable Development” aimed at training media personnel in reporting on environmental issues. Organized by UNESCO and the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden. Jeddah, KSA. April 28–30, 2010.
- Participated in the kickoff meeting of the Middle East Water and Livelihood Initiative (WLI) organized by ICARDA in Amman, Jordan. February 4-6, 2010. Dr. Farajalla has been representing AUB on this initiative through the conceptualization and proposal writing phases and has been nominated by the Dean, Dr. N. Hwalla, to continue in his role and participate in this meeting.
- Panelist and session moderator for a one day workshop on “Sustainable Agriculture in Syria: Identifying Opportunities for Cooperation” Organized by ICARDA and the US National Academy of Science. Damascus, Syria. January 5–7, 2010.
- Presented Lebanon’s NEEDS project at the COP 15 Meeting on Climate Change in Copenhagen, Denmark. December 13–19, 2009.
- Panelist in a workshop on "Applying IWRM Principles in Managing Shared Water Resources: Towards a Regional Vision." Organized by ESCWA and BGR. Beirut, Lebanon. December 1–3, 2009.

## **Salma Talhouk**

- Participated in the World Congress for Middle Eastern Studies (WOCMES) which was held in Barcelona, Spain and presented a paper entitled Ex situ conservation options in Lebanon. July 19–24, 2010.

## **Julie Weltzien**

- Coordinated, accompanied and supervised three of the top students from the LDEM IV class (Dima Rachid; Leah Moukarzel and Mira Mabsout) to attend the annual workshop WAT of the UNESCO Chair in Landscape and Environmental Design of the University of Montreal (CUPEUM) which was held in Kobe, Japan. November 7–22, 2009.

## **Rami Zurayk**

- Attended the Expert Group Meeting on Sustainable Land Management as a Best Practice to Enhance Rural Development in the ESCWA Region. March 25–27, 2009.
- Attended the World Conference on Education for Sustainable Development UNESCO. Bonn, Germany. March 31–April 2, 2009.
- Participated in a talk and gave a second presentation for the Kurdish Regional Government of Iraq about Agriculture Strategies and Implementation Tools in order to promote awareness of agriculture practices in urbanized area. Erbil, Iraq. April 10–13, 2010.
- Attended the Arab Regional Conference in Higher Education (ARCHE +10), Cairo, Egypt. May 31–June 2, 2009.
- Attended the UNESCO conference on Localizing Products: A Sustainable Approach for Natural and Cultural Diversity in the South. Paris, France. June 9–11, 2009.
- Attended the International Conference on Sharing Innovative Agribusiness Solutions. UNIDO. Cairo, Egypt. November 26–27, 2009.
- Compiling a Food Heritage Inventory: Existing Knowledge, Methods and Perspectives. Institut Européen d'Histoire et des Cultures de l'Alimentation. Tours, France. November 30–December 1, 2009.
- Comité de Pilotage Scientifique du 3ème Forum International Planète Terroirs – Chefchaouen, Morocco. Mai 31–Jun 2, 2010.
- Attended the International Conference on The Role of Bedouin and Tribes in the Formation of the Modern State in the Arab East: Historical and Contemporary Perspectives. Orient-Institut, Beirut, Lebanon. June 10–11, 2010.

## Consultancies

### Jala Makhzoumi

- Landscape Consultancy: Erbil Inner Green Belt Project, Khatib and Alami Consultants.

### Julie Weltzien

- Landscape Consultant with Jean Marc Bonfils (Architect) for NWD (North Western District) landscape design competition (Solidere).

### Rami Zurayk

- Consultant for the *Erbil Agricultural Green Belt Design* funded by Khatib and Alami Consultants. 2009.

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## Strategic Challenges

The single most important challenge faced by the department in the past year is the restructuring of the undergraduate program and the development of a new graduate program.

## D. Department of Nutrition and Food Sciences

Prepared by: Dr Ammar Olabi, Chairperson

### Highlights

During the period of October 1, 2009 to September 30, 2010, the Nutrition and Food Sciences Department witnessed several changes that contributed to its growth and development. The first promotion of the newly introduced BS in Nutrition and Dietetics, Coordinated Program graduated after the program obtained approval from the Ministry of Education this year. Also, several actions were taken by the department as follows:

- To satisfy American Dietetic Association accreditation requirements, Dean Hwalla was appointed as the director of the Coordinated Program in Nutrition and Dietetics.
- The NFSC faculty members recommended to the Dean changing the position of the pilot plant supervisor from an academic to a non-academic position.
- The students' societies were reactivated for both divisions of the department: the Food Science and Management and the Nutrition and Dietetics.
- A new graduate course (Food Packaging) was introduced and developed by Dr. Mohammad Abiad.
- The NFSC department initiated meetings with the medical school to reactivate the PhD program in Medical Sciences/Nutrition.
- The department had two visits by the Mars-GCC company (Dubai Branch) which took place during the Spring semester. The first visit was in March with the objective of recruiting students to work in the company. The second took place during the month of April with the objective of investigating means for research collaboration with the department.
- The Department also stood benefit from hosting Dr. Peter Watt, a Reader from the University of Brighton, as a URB visiting scholar. Dr. Watt is the Leader and Head of Research for Sport and Exercise Science at the University of Brighton, Chelsea School. Dr. Watt gave three lectures and conducted productive meetings with faculty members.
- The NFSC Strategic Planning Retreat Meeting was held on September 20, 2010.

## Personnel

The NFSC department has 14 full time faculty members including four instructors, seven part time faculty members, one research associate and 11 research assistants out of which seven are appointed on research grants. Fourteen graduate assistants were appointed for the first semester and 10 for the second semester. The department has three support staff. The tables below details the personnel in the Nutrition and Food Sciences department.

### Full-time Faculty

Nahla Hwalla	Dean, Professor
Ammar Olabi	Chairperson, Associate Professor
Imad Toufeili	Professor
Omar Obeid	Professor
Mohammad Abiad	Assistant Professor
Hala Ghattas	Assistant Professor
Zeina Kassaify	Assistant Professor
Farah Naja	Assistant Professor
Lara Nasreddine	Assistant Professor, Coordinator of Undergraduate Studies in Nutrition and Dietetics
Dalia El Khoury	Lecturer
Marie-Claire Chamieh	Instructor
Basma Hamadeh	Instructor
Nadine Mikati	Instructor
Diana Tannous	Instructor

### Part-time Faculty

Jamila Natour	Lecturer
Sani Hleis	Lecturer
Carla Habib	Instructor
Cosette Fakih	Instructor
Hamza Daroub	Instructor
Sara Ghandour	Instructor
Reem Hamzeh	Instructor



## Research Associate

Nada Adra
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## Research Assistants

Samson Atamian
Omar Baghdadi
Sara Farhat
Monia Hamdan
Reem Hamzeh
Nour Irani
Ghina Kaddour
Rosalie Karam
Melannie Mattar
Nour El Ouyoun Najm
Maya Tabet

## Graduate Assistants

### Fall 2009–10

Graduate Assistant	Major
Nesrine Abou Mehdi	Food Technology
Aida El Aily	Nutrition
Hiba El Rouaiheb	Food Technology
Sara Farhat	Nutrition
Sabine Karam	Nutrition
Marina Mefleh	Nutrition
Dana Moussa	Nutrition
Lama Naim	Nutrition
Maria Rehaime	Food Technology
Maya Salem	Nutrition
Marie-Rose Samaha	Nutrition
Nadine Srour	Food Technology
Zeina Younes	Nutrition
Nancy Zeitouny	Nutrition

## Spring 2009–10

Graduate Assistant	Major
Sabine Karam	Nutrition
Marina Mefleh	Nutrition
Celine Ajjour	Food Technology
Hayat Hatab	Food Technology
Loulwa Kalash	Food Technology
Nadine Nehme	Food Technology
Naghham Tannous	Nutrition
Hala Khudary	Nutrition
Rima Abou Al Hassan	Nutrition
Hiba El-Rouaiheb	Food Technology

## Support Staff

Tania Ghannam	Secretary
Samir Touma	Technician
Arsine Derbogossian	Associate Technician

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## Teaching

### Student Enrollment in Courses

#### Fall 2009–10

Course	Credits	Enrollment	Instructor
NFSC 220	3	49	C. Murad
NFSC 221	3	62	C. Fakh
NFSC 222	3	55	H. Ghattas
NFSC 240	2	65	L. Nasreddine/ M. Chamieh
NFSC 261	3	33	J. Natour
NFSC 265	3	58	I. Toufeili
NFSC 267	2	46	B. Hamadeh/H. Daroub
NFSC 274	3	59	O. Obeid
NFSC 277	3	69	Z. Kassaify
NFSC 282	3	34	Z. Kassaify

Course	Credits	Enrollment	Instructor
NFSC 283	3	17	H. Ghattas
NFSC 288	3	34	A.Olabi/B. Hamadeh
NFSC 292	3	73	D. El Khoury
NFSC 294	1	73	N. Mikati
NFSC 296	1	30	F. Naja/ M. Abiad
NFSC 284 A	1	17	D. El Khoury
NFSC 298F	14	17	N. Mikati
NFSC 299	2	33	F. Naja
NFSC 301	3	18	S. Hleis
NFSC 307	3	6	F. Naja
NFSC 311	3	13	L. Nasreddine
NFSC 312	3	13	D. El Khoury
NFSC 314	3	13	O. Obeid
NFSC 371	3	12	M. Abiad
NFSC 395	1	6	A. Olabi
NFSC 300 A	1	1	L. Nasreddine
NFSC 300 B	2	3	Z. Kassaify

### Spring 2009–10

Course	Credits	Enrollment	Instructor
NFSC 220	3	49	C. Murad
NFSC 221	3	52	F. Naja
NFSC 240	2	20	L. Nasreddine/M. Chamieh
NFSC 261	3	37	J. Natour
NFSC 265	3	56	I. Toufeili
NFSC 267	2	53	B. Hamadeh/H. Daroub
NFSC 272	2	36	S. Ghandour
NFSC 278	3	38	Z. Kassaify
NFSC 285	3	68	F. Naja/ M. Chamieh
NFSC 287	2	88	M. Abiad
NFSC 289	1	89	B. Hamadeh/H. Daroub

Course	Credits	Enrollment	Instructor
NFSC 290	3	55	N. Mikati
NFSC 291	3	27	M. Abiad
NFSC 293	3	64	L. Nasreddine
NFSC 295	1	64	D. Tannous
NFSC 296	1	66	L. Nasreddine/Z. Kassaify
NFSC 299	2	56	H. Ghattas
NFSC 305	3	18	A. Olabi
NFSC 306	3	13	H. Ghattas
NFSC 308	3	17	D. Khoury
NFSC 310	3	14	I. Toufeili
NFSC 315	3	15	D. Khoury
NFSC 395	1	14	N. Sahyoun
NFSC 284B	1	17	D. Khoury
NFSC 298S	14	17	N. Mikati
NFSC 300B	2	2	L. Nasreddine
NFSC 300C	3	1	D. Khoury

### Summer 2009–10

Course	Credits	Enrollment	Instructor
NFSC 261	3	18	I. Toufeili
NFSC 277	3	26	Z. Kassaify
NFSC 280	1	35	I. Toufeili
NFSC 296	1	2	I. Toufeili
NFSC 395	1	3	I. Toufeili
NFSC 300A	1	3	L. Nasreddine/ D. Khoury
NFSC 300B	2	7	L. Nasreddine/ D. Khoury/I. Toufeili/Z. Kassaify
NFSC 300C	3	5	D. Khoury/I. Toufeili

## Completed Theses

A total of 16 theses were completed from 2009–10 as below:

- Malak Rahhal, Omar Obeid (Adviser), Acute Effect of PYY Injection and Caffeine Intake on Postprandial Glycogen and Lipid Synthesis in Rats. October 2009.
- Reem Hamzeh, Zeina Kassaify (Adviser), Plasmid Profile, Antimicrobial and Heat Resistance of Selected Enterobacteriaceae in Sesame Seed, Tahini and Halaweh. October 2009.
- Diana Kaaki, Ammar Olabi (Adviser), Preference Mapping of Commercial Labneh Products in the Lebanese Market. October 2009.
- Darine Barakat, Zeina Kassaify (Adviser), The Effect of Heat Treatment and Storage Temperature on the Microbiological and Chemical Qualities of Traditional Labneh Anbris. February 2010.
- Berna Rahi, Omar Obeid (Adviser), The Effect of Oleic Acid in Combination with Varied Levels of Fish Oil on Glycemic Response and Insulin Sensitivity of Healthy Men. October 2010.
- Maya Itani, Omar Obeid (Adviser), Impact of Eight Lessons Intervention on Fourth, Fifth, and Sixth Grade Students' Nutrition Knowledge. February 2010.
- Adelle Abu El-Aradat, Omar Obeid (Adviser), The Effect of Dietary Phosphorus Manipulation on Lipid Status of Rats Maintained on a High Glucose Diet. February 2010.
- Betty Dedeian, Omar Obeid (Adviser), Effect of Phosphorus Manipulated High Protein Solution on Subjective Satiety and Energy Intake in Adults. February 2010.
- Roula Rechmany, Lara Nasreddine (Adviser), Food Consumption Patterns and Dietary Exposure to Organophosphorous Pesticide Residues in an Adult Semi-Rural Population in Lebanon. February 2010.
- Sara Farhat, Omar Obeid (Adviser), The Acute Effect of Caffeine Supplementation on Hepatic Glycogen in Male Rats. February 2010.
- Sarah Kassem Youssef, Lara Nasreddine (Adviser), Comparative Analysis of Body Composition Assessment Methods in Lebanese Boys Aged 8–10 Years: Anthropometry, Bioelectrical Impedance, and Deuterium Dilution. February 2010.
- Laura Karam, Zeina Kassaify (Adviser), The Determination and Validation of Microbial Criteria for Tahini and Halawa Products. February 2010.
- Lama Al-Khuja, Lara Nasreddine (Adviser), Effects of Different Types of Fat on PYY, Ghrelin, and Insulin Postprandial Response in Healthy Male Subjects. June 2010.

- Joelle Chahine, Lara Nasreddine (Adviser), Comparative Analysis of Selected Body Composition Assessment Methods in 8 to10 Year Old Lebanese Females. June 2010.
- Zeina Younes, Farah Naja (Adviser), The Association Between Dysfunctional Eating Behaviors and Body Image Perception in Underweight and Normal Weight Lebanese Young Adult Females. June 2010.
- Ossanna Nashalian, Nahla Hwalla (Adviser), Dietary Exposure and Risk Assessment of Adult Urban Population to Nutrient Deficiencies and Contaminants in Lebanon: A Total Diet Study Approach. June 2010.

Twenty students completed the requirements for the MS degree in nutrition (13) and Food Technology (9). Ninety Two students completed the requirements for the BS degree in Nutrition and Food Sciences distributed as follows: 49 in Nutrition and Dietetics; 26 in Food Science and Management and 17 in Nutrition and Dietetics-Coordinated Program.

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## Research Funding

### Internal Grants

Eight members of the department received URB grants and one member received a grant from the Issam Fares Institute for Public Policy and International Affairs as below:

### University Research Board (URB)

- Abiad, Mohammad. Exploring of the Effects of Spray Drying Conditions on Aging and Enthalpy Relaxation of  $\alpha$ -lactose.
- Ghattas, Hala. Iron Deficiency in Obesity: Hidden Hunger or Anemia of Inflammation?
- Kassaiy, Zeina. Characterization of the Lactic Acid Bacteria in Anbaris and Preliminary Probiotic Selection.
- Naja, Farah. Prevalence and Determinants of use of Complementary and Alternative Medicine Among Type 2 Diabetes Mellitus.
- Nasreddine, Lara. Effects of Different Types of Fat on PYY, GLP-1, Ghrelin, and Insulin Postprandial Response in Healthy Male Subjects..
- Obeid, Omar. The Role of Phosphate in Fructose Induced Hypertriglyceridemia of Rats.
- Olabi, Ammar. The Characterization of the Physicochemical and Sensory Properties of Full-fat, Reduced-fat and Low-fat Bovine, Ovine and Caprine Concentrated Yogurt.

- Toufeili, Imad. Cultivar Influence on Chemical Composition and Sensory Profile of Lebanese Extra Virgin Olive Oil.

### **Issam Fares Institute for Public Policy and International Affairs**

- Abiad, Mohammad. Recycling Farm Biomass for Biogas Production: Implications for Rural Livelihoods and Greenhouse Gas Emissions.

### **Local, Regional and International Grants**

Eight members of the department were successful in attracting national and international grants as below:

- Hwalla, Nahla. Interventions to Promote Healthy Eating and Physical Activity in Lebanese School Children Targeting Overweight and Obesity. WHO.
- Hwalla, Nahla. Body Fat and its Relationship with Metabolic Syndrome Indicators in Overweigh Pre-adolescents and Adolescent Children in Lebanon. IAEA.
- Hwalla, Nahla. Vegetable Seed Trial at AREC. UNIFERT.
- Hwalla, Nahla. Interventions to Promote Healthy Eating and Physical Activity in Lebanese School Children Targeting Overweight and Obesity. UNU.
- Hwalla, Nahla, Nasreddine, Lara. Associated Research Unit on Under-nutrition and Obesity in Lebanon. LNSCR.
- Naja, Farah. Prevalence and Determinants of Complementary and Alternative Medicine Use in Lebanon: A National Study. LNCSR.
- Obeid, Omar. The Effect of Oleic Acid in Combination with Varied Levels of Fish Oil on Lipid Profile of Healthy Men. EFAMOL.
- Olabi, Ammar. The Impact of the Current Food Environment on Nutrition and Health: Policy Options to Improve Dietary Diversity, Food Security, Livelihoods and Ecosystem Management in Lebanon. Grant Period: 3 years. American University of Beirut - IBSAR and the University of Ottawa to the International Development Research Centre, Ecohealth Program, Canada.

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## **Publications**

Twenty three articles were published in international refereed journals by the NFSC members as indicated below.

### **International Refereed Journals (Corresponding/Senior author \*)**

- **Abiad, M.G.**, Campanella, O.H. and Carvajal, M.T.\* Assessment of Thermal Transitions by Dynamic Mechanical Analysis (DMA) Using a Novel Disposable Powder Holder. *Pharmaceutics* (2010); 2: 78–90.

- **Abiad, M.G.**, Gonzalez, D.C., Mert, B., Carvajal, M.T.\* and Campanella, O.H.\* A Novel Method to Measure Melting and Glass Transition Temperatures of Pharmaceutical Powders. *International Journal of Pharmaceutics* (2010); 396: 23–29.
- Basua, S., Diwan, M., **Abiad, M.G.**, Zheng, Y., Campanella, O.H.\* and Varmac, A. Transport Characteristics of Dehydrogenated Ammonia Borane and Sodium Borohydride Spent Fuels. *International Journal of Hydrogen Energy* (2010); 35: 2063–2072.
- Barbour, E.K., Kaadi, M.S., Shaib, H.A., **Kassaify, Z.G.**, Hamadeh, S.K., Sleiman, F.T., Jaber, L.S., Harakeh, S. and Abdelnoor, A.M. Characterization of an Emergence of Rabbit Hemorrhagic Disease in Lebanon. *Agriculture and Biology Journal of North America* (2010); (2): 113–120.
- Barbour, E.K., Mastori, F.A., Shaib, H.A., Sleiman, F.T., **Kassaify, Z.G.**, Abdel Nour, A.M., Jaber, L.S. and Sabra, A.H. Comparison of the Level of Organic Contaminants in Bile and Muscle of Mulletts spp. Following a Significant Oil Spill in the Eastern Mediterranean Sea. *Veterinaria Italiana* (2009); 45(3): 405–412.
- Barbour, E.K., Sabra, A.H., Shaib, H.A., Berckley, A.M., Farajalla, N.S., Zurayk, R.A., Hamadeh, S.K. and **Kassaify, Z.G.** Polychlorinated Biphenyl Levels and its Correlation to Size of Marine Organisms Harvested from a War-Induced Oil Spill Zone of the Eastern Mediterranean Sea. *Mediterranean Marine Science* (2009); 10(2):19–28.
- **Kassaify, Z.G.\***, Toufeili, I., Najjar, M. and Malek, A. Microbiological and Chemical Analysis of Lebanese Qishta (heat-coagulated milk). *Eastern Mediterranean Health Journal* (2010); 16(9): 926–931.
- **El Khoury, D** and **Hwalla, N.\*** 2010. Metabolic and Appetite Hormones Responses of Hyperinsulinemic Normoglycemic Males to Meals with Varied Macronutrient Composition. *Annals of Nutrition and Metabolism*; 57: 59–67.
- **El Khoury, D.**, El-Rassi, R., Azar, S.T. and **Hwalla, N.\*** Postprandial Ghrelin and PYY Responses of Male Subjects on Low Carbohydrate Meals to Varied Balancing Proportions of Proteins and Fats. *European Journal of Nutrition* (2010); 49:493–500.
- **El Khoury, D.**, **Hwalla, N.**, Frochot, V., Lacorte, J.M., Chabert, M. and Kalopissis, A.D.\* Postprandial Metabolic and Hormonal Responses of Obese Dyslipidemic Subjects with Metabolic Syndrome to Test Meals, Rich in Carbohydrate, Fat or Protein. *Atherosclerosis* (2009); 210: 307–313.
- Koudou, B.G., **Ghattas, H.\***, Esse, C., Nsanzabana, C., Rohner, F., Utzinger, J., Faragher, B.E. and Tschannen, A.B. The Use of Insecticide-treated Nets for Reducing Malaria Morbidity Among Children Aged 6-9 months, in an Area of High Malaria Transmission in Central Cote d'Ivoire. *Parasites and Vectors* (2010); 3(1):91.



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### Abstracts and Conference Proceedings

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- **Kassaify, Z. G.**, Rehaime, M., and Nasserline, L. Quantitative Determination of Organophosphorous Pesticide Residues in Selected Lebanese Foods. Abstract presented as a talk in the Rotary Tripoli Meeting, Quality Inn Hotel. Beirut, Lebanon. December 9, 2009.
- **El Khoury, D.**, Hwalla, N., Chambaz, J., Kalopissis, A.D. and Chabert, M. The Role of Apolipoprotein A-II in the Development of Insulin Resistance Following Chronic High Fat Feeding. The 19th International Congress of Nutrition. Bangkok, Thailand. (2009).
- **El Khoury, D.** Sports Nutrition in Children and Adolescents, Current Challenges in Adolescent and Child Nutrition Conference by the Lebanese Association for Nutrition and Food Sciences, American University of Beirut, Beirut, Lebanon. (2009).
- **El Khoury, D.** Effect of High-carbohydrate, High-protein and High-fat meals on the Postprandial Responses of Appetite Hormones in Metabolic Syndrome Subjects, The Third Arab Conference on Obesity and Physical Activity. Manama, Bahrain. (2010).
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- **Nasreddine, L.**, Naja, F., Kassem-Youssef, S., Chahine, J. and Hwalla, N. Body Composition Assessment Methods in 8-10 year old Lebanese Children, 11th International Congress on Obesity. Stockholm, Sweden. July 11–15, 2010.
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- **Naja, F.**, Nasreddine, L., Chamieh, M.C., Itani, L., Adra, N., Sibai, A. and Hwalla, N. Dietary Patterns and their Determinants in Lebanon, 11th International Congress on Obesity. Stockholm, Sweden. July 11–15, 2010.
- **Naja, F.**, Nabhani-Zeidan, M. and Nasreddine, L. The Effect of Vitamin C and Vitamin E Supplementation on their Dietary Intake, First International Vitamin Conference. Copenhagen, Denmark. May 19–21, 2010.
- **Naja, F.**, Nabhani-Zeidan, M. and Nasreddine, L. The Effect of Vitamin C and Vitamin E supplementation on Energy and Macronutrient Intake, Lebanese Association for the Advancement of Science 16th Conference. Beirut, Lebanon. November 13–15, 2009.
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- **Obeid, O.A.**, Mattar, Lama and Hwalla, Nahla. The Effect of Phosphorus Manipulation on in-vivo Glycogenesis and Lipogenesis of Rats Fed a High Fructose Diet. *FASEB J*. 2009 23:722.18.
- **Obeid, O.A.**, Saredidine, H., Abou Reslan, D. and Hlais, S. Effect of Lysine and Vitamin B6 Supplementation on Male Subjects with Hypertriglyceridemia. *Amino Acids*, 37 (Suppl 1) S101, 2009.
- **Lammert, A., Olabi, K.**, Brooks, S. Vink and Tong, P. Sensory Properties of Chocolate Flavored, Protein Fortified, Fluid Milk Based Recovery Beverages Produced using Indirect and Direct Thermal Processing. Abstract presented as a poster in ADSA/ASAS Joint Annual Meeting. Denver, Colorado. July 11–15, 2010.

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## Services

### Mohammad Abiad

#### *AUB*

- Member of the FAFS Library Committee.
- Member of the FAFS Academic and Curriculum Committee.
- Member of the Steering Committee, Center for Food Security and Policy in the Middle East.
- Member of the FAFS Admissions Committee.
- Member of the FAFS Student Affairs Committee.

#### *Others*

- Member of the American Association of Pharmaceutical Scientists.
- Member of the Institute of Food Packaging Professionals.
- Awarded a long term faculty development grant at the Department of Agriculture and Biological Engineering, Purdue University, West Lafayette, IN (Summer 2010).
- Reviewer of papers and abstracts at the American Association of Pharmaceutical Scientists Annual Meeting.
- Member at the National Committee for Agricultural Manufacturing and Food Products, Lebanese Ministry of Agriculture.
- Member at the Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Packaging (NL TC 122).
- Member at the Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Safety of Food Processing Machinery (NL TC 653).
- Member at the Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Food additives (NL TC 1008).
- Member at the Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Food Labeling (NL TC 1011).
- Member at the Lebanese National Standards Institution (LIBNOR), Lebanese Ministry of Industry, Technical Committee on Paper, Board and Pulp, Glass and Metal Containers (NL TC 3010).

### Dalia El Khoury

#### *Others*

- Member of the examination committee for the National Colloquium for the Profession of Dietetics.

- Ad hoc reviewer for a Project on Adiposity and Iron Status in Lebanese Children and Adolescents; for Dr. Hala Ghattas as Principle Investigator, April 2010.
- Committee member of Masters' theses.
- Co-Advisor on The Postprandial Responses of Appetite Hormones to Varied Macronutrient Composition of Meals in Anorexic and Bulimic Adolescent Girls. Nagham Tannous (2010–11).
- Collaborator on The Effect of Coffee and Caffeine Intake on Meal Pattern of Rats. Marina Mefleh (2010–11).
- Collaborator on Effect of Meal Glycemic Index on PYY and Ghrelin in Normal Weight Men. Marie-Rose Samaha (2010–11).
- Collaborator on Meal pattern of Male Rats Maintained on Individual Amino Acid Supplemented Diet. Raghad Ayaso (2010–11).
- Collaborator on Postprandial Glycemic and Insulinemic Responses to Phosphorus-Manipulated Oral Glucose Load. May Khattab (2010–11).
  - Advisor of many undergraduate and graduate seminar students.
  - Supervisor of several undergraduate and graduate tutorial students.
  - Member of the American Society for Nutrition (ASN). June 2010–present.
  - Member of the Lebanese Dietetic Association (LDA). October 2002–present.
  - Participated in an television interview (OTV) about Adequate Nutrition for Osteoporosis. November 27, 2009.

## **Hala Ghattas**

### ***AUB***

- Member of the FAFS Graduate Studies Committee.
- Member of the FAFS Research Committee.
- FAFS representative on the Social and Behavioral Sciences Institutional Research Board (IRB) (Spring 2010).
- Faculty Advisor to the joint FAFS/IFI Program on Food Security and Policy in the Middle East.
- FAFS representative on the PhD Task Force Committee for the Biomedical Sciences Doctoral program (Spring 2010).

### ***Others***

- Reviewer of papers in the following International Refereed Journals:
  - PLOS Medicine
  - Journal of Nutrition
  - Tropical Medicine and International Health
  - Public Health.

- Member of the Nutrition Society (London, UK).
- Fellow of the Royal Society of Tropical Medicine and Hygiene.
- Member of the American Society for Nutrition.
- Organized Nutrition education booths as part of the University Wellness Committee's Fit-a-thon, November 6, 2009.
- Co-organised a consultation workshop on Rural Poverty in the Middle East in for IFAD's Rural Poverty Report, Beirut, March 2010.
- Organised women's nutrition education sessions in Beirut, the Bekaa and Tyre in collaboration with World Vision Lebanon and Amel Association (2009–10).

## **Nahla Hwalla**

### *Others*

- Member of the American Society of Clinical Nutrition, American Institute of Nutrition, USA.
- Member of the World Council on Nutrition, Fitness and Health.
- Member of the Columbus Concept Scientific Advisory Board.
- Member of the Middle East and North African Nutrition Association.
- Member of the American Nutrition Society.
- Member of the WHO Expert Advisory Panel on Nutrition.
- Member of the WHO Nutrition Guidance Expert Advisory Group (NUGAG), Sub-group on Diet and Health.
- Reviewer of research articles in Lebanese Science Bulletin.
- IQEF Regional Review Board - Middle East.
- Editorial board member. Mediterranean Journal of Nutrition and Metabolism.
- Editorial board member International Journal of Food Sciences and Nutrition.
- Editorial board member: Health Education Research.
- Editorial board member: World Health Organization Bulletin.
- Editorial board member: Annals of Nutrition and Metabolism.
- Reviewer of Research Articles:
  - World Health Organization Bulletin
  - Nutrition Research
  - Annals of Nutrition and Metabolism
  - European Journal of Clinical Nutrition.
- Fellow of International Union for Nutritional Sciences (FIUNS).
- American Dietetic Overseas Association Country Representative for Lebanon.
- Council member of World Public Health Nutrition Association.

## **Zeina Kassaify**

### ***AUB***

- Member of the FAFS Academic and Curriculum Committee.
- Member of the FAFS Admissions Committee.
- FAFS Coordinator for Continuing Education Center (CEC) programs.
- Member of the University Senate.
- Member of the University Student Faculty Committee.
- Adviser, Social Services Club.
- Adviser, Food Science Society Departmental facilitator, Program Learning Outcomes (PLO) Committee for FAFS.
- Member of the Academic Development Committee.
- FSPME (Food Security and Policy for the Middle East) Issam Fares Institute Research group.
- Member of IBSAR (Center for Nature Conservation and Sustainable Futures).

### ***Others***

- Member of the Lebanese Army Committee for updating food standards.
- Member of the Ministry of Agriculture Committee for fresh and frozen meats and poultry.
- UNIDO Food Safety Panel for Food Safety Law.
- FAFS Representative on the Lebanese Standards Institution –LIBNOR-Experts Committee AUB.
- Member of the Institute of Food Technologists.
- Member of the Lebanese Association of Food Technologists.
- Reviewed a manuscript for the journal Science of the Total Environment.
- Conducted a shelf life study in collaboration with GWRC for a well-known restaurant in Beirut area.
- Audited the quality and safety of Roadster Diner and Casper and Gambini's foodservices.
- Investigated a foodborne complaint for Zaatar W Zeit . January, 2010.
- Participated in an AUB formed focus group for AUB branding and image. November 18, 2009.
- Provided guidance for the Lebanese Army on the safety of certain received food items (Fish fillet frozen and raw, tahini) January, 2010.
- Consulted by the Lebanese Army on the safety of certain received food items (olives and canned meat products) April, 2010.

- Developed and prepared the proposal for the Beverage Innovations and Development Competition 2009 for the Arab Beverage Association to be held in October 2010.

## **Farah Naja**

### ***AUB***

- Member of the FAFS Library Committee.
- Member of the University Wellness Committee.

### ***Others***

- Member of the Lebanese Dietetic Association.
- Member of the Canadian Nutritional Sciences Association.
- Member of the National Nutrition Colloquium Examining Committee.
- Member of the Lebanese Nutrition and Food Sciences Association.
- Member of the Canadian Nutrition Society.
- Reviewed a manuscript for the Lebanese Medical Journal.
- Conducted a workshop entitled “You think what you eat” at the new women’s dormitory at the AUB campus as part of the University Wellness Committee activities.
- Review of report Perspectives on Infectious Agents and Cancer published by Cancer Care Ontario, Canada, April 2010.
- Television interview with AlAqsa broadcasting station, Spring 2010.
- Interview with NowLebanon newspaper, Spring 2010.
- Participated in the research retreat of IBSAR, May 2010.
- Participated in research meetings/publication for the National survey on Behavioral and Non-communicable Diseases Risk Factors, lead by the FHS and FAFS.
- Member of the Food Security and Policy in the Middle East (FSPME) Program.

## **Lara Nasreddine**

### ***AUB***

- Member of the FAFS Research Committee.
- Member of the FAFS Graduate Studies Committee.
- Member of the FAFS Academic Curriculum Committee.
- Coordinator of the Nutrition and Dietetics Undergraduate Program.

### ***Others***

- Board Member of the National Nutrition Colloquium examining committee.



- Member of the Lebanese Dietetic Association.
- Review of manuscripts submitted for publication in international journals (Environment Research; Italian Journal of Food Science; International Journal of Environmental Health Research; Nutrition Journal).
- Organization of Nutrition Education activities for the Nutrition Stand in Science Days (Ayam Al Ouloum): October 14–17, 2009, Beirut, Lebanon.
- Participated in a Television Interview: Current Challenges in Adolescent and Child Nutrition, October 28, 2009 (Program name: Tele Clinique on Tele-Liban).
- Member of the Food Security and Policy in the Middle-East (FSPME).

## **Omar Obeid**

### ***AUB***

- Member of the FAFS Advisory Committee
- Member of the University IRB committee.
- Member of IBSAR.

### ***Others***

- Full member at the Nutrition Society. UK
- Member at the Lebanese Association for Nutrition and Food Science. (Executive Committee).
- Member of the Advisory Committee for the Syrian Diabetic Journal (Diabetic World).
- Member of the Advisory Committee for the Arab Center of Nutrition.
- Member of the Governmental Colloquium Committee (Dietetic).
- Member of the editorial board: Arab Journal of Food and Nutrition.
- Reviewer: Eastern Mediterranean Health Journal (EMHJ).
- Reviewer: Journal of Biological Sciences.
- Member of the Nutrition in Emergencies Training Network.

## **Ammar Olabi**

### ***AUB***

- Chairperson of the Nutrition and Food Sciences Department.
- Member of the FAFS Research Committee.
- Member of the FAFS Graduate Studies Committee.
- Member of the FAFS Admissions Committee.
- Member of the FAFS Academic Curriculum Committee.
- Member of the FAFS Student Affairs Committee.

- Member of the University Graduate Board.
- Faculty Representative, Program Learning Outcomes (PLO) Committee for FAFS.
- Member of the Food Security and Policy in the Middle East Program.
- Member of IBSAR (Nature Conservation Center for Sustainable Futures).

#### ***Others***

- Member of the Committee for milk and milk products at the Ministry of Agriculture.
- Member of the National Codex Alimentarius Committee.
- Reviewer for the Journal of Food Science.
- Reviewer for the Journal of Dairy Science.
- Member of the Institute of Food Technologists (Sensory and Quality Assurance divisions).
- Member of the American Dairy Science Association.
- Member of the Association for Chemoreception Sciences.
- Developed and prepared the proposal for the Beverage Innovations and Development Competition 2009 for the Arab Beverage Association to be held in October 2010.

### **Imad Toufeili**

#### ***AUB***

- Member of the FAFS Admissions Committee.
- Member of the FAFS Graduate Studies Committee.
- Member of the FAFS Commencement Committee.
- Member of the FAFS Advisory Committee (Spring 2009–10).
- Member of the University Commencement Committee.

#### ***Others***

- Member of the National Committee for Olive Oil at the Ministry of Agriculture.
- Reviewed manuscripts for Food and Nutrition Bulletin, The Open Food Science Journal, Journal of Food Composition and Analysis and Pharmaceutical Biology.

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## Participation in Workshops and Conferences

### Mohammad Abiad

- Attended the American Association of Pharmaceutical Scientists (AAPS) Annual Meeting, Los Angeles, USA, November 8-12, 2009. Poster title: A Novel Disposable Powder Holder to Characterize Thermal Transitions by Dynamic Thermal Analysis (DMA).
- Attended the Whistler Center for Carbohydrate Research (WCCR) Annual Board Meeting, West Lafayette, USA. (2010).
- Organized and gave a workshop on the fundamentals of food packaging in collaboration with Liban Pack and UNIDO which covered the basics and fundamentals of the various packaging materials, their applications and manufacturing processes (2010).

### Dalia El Khoury

- Attended a course entitled “Musculoskeletal disease and fragility fractures congress,” Nestlé. Brumana, Lebanon. November 21–22, 2009.
- Attended a workshop entitled “Physical activity recommendations for obesity management,” Arab Center for Nutrition. Manama, Bahrain. January 19, 2010.
- Attended a workshop entitled: “Training course on Child Growth Assessment,” World Health Organization. Beirut, Lebanon. June 8–11, 2010.

### Hala Ghattas

- Attended a workshop on managing sponsored programs: Pre and Post-award Issues in Research Administration, American University of Beirut, October 21–22, 2009.
- Attended a conference on Current Challenges in Adolescent and Child Nutrition Conference (Lebanese Association of Nutrition and Food Sciences) Beirut, Lebanon. October 24, 2009.
- Attended a consultation workshop on Rural Poverty in the Middle East for IFAD’s Rural Poverty Report, Beirut, Lebanon. March 2010.

### Nahla Hwalla

- Attended and presented a paper at the 19th International Congress of Nutrition (ICN 2009) at Bangkok Trade and Exhibition Center. Bangkok, Thailand. October 4–9, 2009.
- Attended the third Technical Meeting on Body Fat and its Relationship with Metabolic Syndrome Indicators in Overweight Pre-adolescents, which was held under a coordinated research project at IAEA’s Headquarters in Vienna, Austria. November 2009.

- Invited to participate at the First Nutrition Forum, Nutrition in Health and Disease at the University of Kalamon and to present two papers: Obesity in Children and Adolescents and the Metabolic Syndrome” and Obesity and Malnutrition in Syria. Syria. March 31–April 1, 2010.
- Attended the International Congress on Obesity (ICO 2010) and presented a paper entitled: Metabolic Syndrome and Insulin Resistance in Obese Pre-pubertal Children in Lebanon: A Primary Health Concern. Stockholm, Sweden. July 11–16, 2010.

### **Farah Naja**

- Attended and presented a Poster Presentation: Naja, F., Nasreddine, L., Itani, L., Zeidan, M., and Hwalla, N. Effect of Vitamins E and C Supplementation on their Dietary Intakes at the Lebanese Association for the Advancement of Science 16th Conference. Beirut, Lebanon. November 13–15, 2009.
- Attended and presented an Oral Presentation: Optimal Nutrition for Children and Adolescents Current Challenges in Adolescent and Child Nutrition Conference, at the LANFS/NFSC. Beirut, Lebanon. October 24, 2009.
- Attended and presented a Poster Presentation: Naja, F., Nasreddine, L., Chamieh, M.C., Itani, L., Adra, N., Sibai, A. and Hwalla, N. Dietary Patterns and their Determinants in Lebanon at the 11th International Congress on Obesity. Stockholm, Sweden. July 11–15, 2010.

### **Lara Nasreddine**

- Oral Presentation entitled Dietary Management of Obese Adolescents and Children, Current Challenges in Adolescent and Child Nutrition Conference (LANFS) October 24, 2009.
- Oral Presentation entitled Food Consumption Patterns in the Lebanese Adult Population, Lebanese Association for the Advancement of Science. Beirut, Lebanon. November 13–15, 2009.
- Oral Presentation entitled Dietary Exposure to Selected Pesticide Residues in Lebanon: a Total Diet Study Approach. Workshop on Crop Health Management and Food Safety, Order of Engineers. Beirut, Lebanon. May 11–12, 2010.
- Oral Presentation entitled Comparative Analysis of Body Composition Assessment Methods in 8–10 year old Lebanese Children, Regional Meetings on Nuclear Techniques to Address the Double-Burden of Malnutrition in Children (International Atomic Energy Agency). Dhaka, Bangladesh. January 24–28, 2010.
- IAEA Consultants’ Meeting on Projects Addressing Childhood Obesity. Stockholm, Sweden. July 11, 2010.

## **Omar Obeid**

- Invited by the Lebanese Association for Nutrition and Food Science (LANFS) to present a lecture entitled: Malnutrition in Adolescents and Children: The Hidden Deficiencies, at their Conference: Current Challenges In Adolescent And Child Nutrition. Beirut, Lebanon. October 24, 2009.
- Invited by the Lebanese Association for the Advancement of Science to present a poster entitled: Effect of Lysine and Vitamin B6 Supplementation on Male Subjects with Hypertriglyceridemia, at the 16th International Conference organized by Beirut Arab University in collaboration with the Lebanese Council for the Advancement of Science (CNRS-L). Beirut, Lebanon. November 13–15, 2009.
- Attended a workshop on: Effective Use of Technology Tools in Teaching, ACC, AUB. November 16–20, 2009.
- Attended the: Musculoskeletal Diseases and Fragility Fractures Congress (course) organized by the Lebanese Osteoporosis Society. November 21–22, 2009.
- Attended to the Middle East and North Africa Nutrition Association (MENANA) meeting as a representative of the Lebanese association for Nutrition and Food Science (LANFS). Cairo, Egypt. January 12–14, 2010.
- Attended the Third Arab conference on Nutrition and Physical Activity and presented a lecture entitled: Role of Meal Size and Meal Numbers in the Control of Food Intake. Manama, Bahrian. January 19–21, 2010.

## **Ammar Olabi**

- Attended the launching of the Agricultural Product Quality Control and Certification Program (QCC), a project undertaken by ACIDI-VOCA and funded by USAID. Le Royal Hotel (Dbayeh). Beirut, Lebanon. October 23, 2009.
- Attended the First Anniversary for LibanPack at the Movenpick Hotel, Beirut, Lebanon. April 15, 2010.
- Attended the launching of the Food Advisory Unit in IRI, Beirut, Lebanon. February 2010.
- Attended the Lebanese Food Industry Awareness Day at the Biel, Beirut, Lebanon. April 2010.

## **Imad Toufeili**

- Attended the Second Agribusiness Seminar held in FAFS October 21, 2009.

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## Consultancies

### Mohammad Abiad

- Consulted and evaluated a pilot plant setup for preserve and jam production (for Caritas –November 2009).
- Facility inspection and planning and recommendations for factory expanding and rebuilding to comply with HACCP and GMP's implementation (2009). FPP Jana, Deir Koubel, Aley, Mount Lebanon.

### Hala Ghattas

- Organized a one-week training course on Nutrition in Emergencies, Beirut, September 2010.
- Responsible for designing food security questions for the survey and analyzing and writing up the results from the food security questionnaire. UNRWA: Poverty and food security of Palestine refugees in Lebanon: analysis and targeting.

### Nahla Hwalla

- Invited to participate in the 2nd Meeting of the Nutrition Advisory Committee in Nutrition (CAN) organized by the World Health Organization Regional Office for Eastern Mediterranean Region (WHO-EMRO) for developing a Regional Strategy for Nutrition Strategy and Action Plan. Amman, Jordan. October 25–26 2009.
- Invited to participate in the 3rd Meeting of the Nutrition Advisory Committee in Nutrition (CAN) organized by the World Health Organization Regional Office for Eastern Mediterranean Region (WHO-EMRO) for the launching of the Regional Nutrition Strategy and Action Plan. Cairo, Egypt. December 12–13, 2009.
- Invited to participate in the accreditation review of the BS Clinical Nutrition program at the University of Sharjah managed by the Commission for Academic Accreditation Ministry of Higher Education and Scientific Research. Dubai, UAE. January 10–14, 2010.
- Invited to participate in the first meeting of the WHO Nutrition Guidance Expert Advisory Group (NUGAG) to provide advice to WHO in updating Nutrition Guidelines, particularly in the area of Diet and Health. Geneva, Switzerland. February 22–25, 2010.
- Invited to advise the International Atomic Energy Agency (IAEA) on nuclear techniques to assess body composition as risk factors in the development of chronic diseases. Vienna, Austria. March 1–3, 2010.
- Appointed by Director General of WHO as a member of the WHO Nutrition Guidance Expert Advisory Panel on Nutrition for four years.

## **Zeina Kassaify**

- Prepared a report after the inspection of the FPP Food Industry in Chwayfat, Lebanon on the recommendations for the implementation of GMP's HACCP and ISO 22000 implementations. March 2010.
- Prepared a report after the inspection of the Sofil Catering Facility, Beirut, Lebanon on the recommendations for the implementation of GMP's HACCP and ISO 22000. February 2010.

## **Lara Nasreddine**

- Interpretation of the results generated by the first Tunisian Total Diet Study, Agence Nationale de Contrôle Sanitaire et Environnemental des Produits (ANCSEP), Ministère de la Santé Publique, Tunis, Tunisia. March 15–18, 2010.

## **Omar Obeid**

- Invited to participate in the Technical Consultation for Setting up Guidelines for Practicing Clinical Dietician organized by WHO-EMRO in collaboration with the Medical Science College, Sharja University and the Sharja Medical Directorate. Sharja, UAE. April 24–25, 2010.
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## **Certificates**

### **Mohammad Abiad**

- Received the Certified Packaging Professional title (CPP), 2010.

### **Dalia El Khoury**

- Completed the Collaborative Institutional Training Initiative (CITI) course on Social and Behavioral Research with Human subjects . February, 2010.
- Licensed to Possess and Use Unsealed Sources of Ionizing Radiation in Research March, 2010.
- Acquired the WHO Child Growth Standards certificate, June, 2010.

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## **Strategic Challenges**

In its retreat meeting held on September 20, 2010, the NFSC faculty discussed several challenges that are facing the department.

### **Space capacity**

The NFSC department is in the process of preparing a room for graduate students where they could work, especially that the number of graduate students in the department is increasing.

### **Students Internships for Food Science and Management Undergraduate Students**

Faculty members are discussing plans to develop a formal mechanism for the placement of FSMT interns and to develop an internship program for collaborating establishments. For this strategic action to be successful, the need for a departmental research assistant was identified.

### **Research**

The need to recruit a biostatistician to provide statistical support for faculty, graduate and undergraduate students is a current essential strategic objective. This will assist faculty in improving the quality of their research proposals. In addition, the faculty members raised the need to recruit research support staff to provide support in laboratory work and screening for funding opportunities.

### **Outreach**

The department is discussing tools to provide analytical services for the food industry. The possible analyses and the fees are still under discussion.



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