Scholars in HeAlth Research Program*
And
Calcium Metabolism & Osteoporosis Program
Two Programs, One Goal

Ghada El-Hajj Fuleihan, MD, MPH, FRCP
American University of Beirut, Beirut, Lebanon

NIH FIC Advisory Board Meeting
May 12, 2015

*NIH Grant Award
D43TW009118
About the American University of Beirut

The American University of Beirut is a teaching-centered research university founded to provide excellence in education, to participate in the advancement of knowledge through research, and to serve the peoples of the Middle East and beyond.

Founded in 1866, chartered in New York State, AUB has around 700 faculty members and a student body of around 8,000.

AUB includes six faculties and offers more than 120 programs leading to the bachelor's, master's, MD, and PhD degrees. Collaborations of this program are with

- Faculty of Medicine FM
- Faculty of Health Sciences FHS
- Faculty of Agriculture and Food Sciences FAFS
Calcium Metabolism and Osteoporosis Program

- Founded in December 1997, a center of expertise for metabolic bone disorders (MDB).

- Its mission is to promote excellence in clinical care, research and education in disorders of calcium and bone metabolism.

- The program received the official designation by the World Health Organization as a “WHO Collaborating Center (WHO-CC) for Osteoporosis and Metabolic Bone Disorders” 2010, renewal to 2018.

- Program’s Webpage including information on research, education/training, guidelines, clinical services, publications, news and awards can be accessed at: [http://www.aub.edu.lb/fm/cmop/Pages/index.aspx](http://www.aub.edu.lb/fm/cmop/Pages/index.aspx)
PARADIGM for ADVANCING AGENDA FOR NCDs
CaMOP Network of Research and Collaborations
Cross-Roads of Research with Health Care/Policy

AUB
- Intradepartmental
  - Hem-Oncology
  - Gastroenterology
- Interdepartmental
  - Neurology
  - Pediatrics
  - Orthopedics
  - OBGYN
- Interfaculty
  - FAFS
  - FHS

International
- Societies Organizations
  - WHO Geneva/EMRO
  - WHO Sheffield CC
  - Int Osteoporosis Foundation
  - Int Soc Clinical Densitom
  - Am Soc Bone Mineral Res

Lebanon
- Inter-institutional
  - RHUH
  - St. Joseph University
- Lebanese Ministry of Health
- WHO-Lebanon

Academic Institutions
- Brigham and Women’s Hospital, USA
- Mayo Clinic, USA
- Odense University, Denmark
- Katholieke Universiteit Leuven, BE
Advancing the Osteoporosis Health Care Agenda

- **1986**: NOF founded
- **1994**: WHO BMD Dx OP
- **1998**: NOF Guidelines
- **2004**: Surgeon General OP Report
- **2008**: NOF FRAX Guidelines
- **2008**: FRAX launched
- **2009**: National Action Plan for Bone Health
- **2009**: FRAX guidelines
- **2010**: National Bone Health Alliance
- **2008**: Surgeon General OP Report
- **1997**: CaMOP

**USA**

**Lebanon**
Advancing the Osteoporosis Health Care Agenda

USA

1986
NOF founded

1994
WHO BMD Dx OP

1998
NOF Guidelines

2004
Surgeon General OP Report

2008
NOF FRAX Guidelines

2008
FRAX launched

2009
National Action Plan for Bone Health

2009
National Bone Health Alliance

2010
National Task Force for Osteoporosis

2010
WHO CC for Osteoporosis

Lebanon

1997
CaMOP

2002
OSTEOS founded

2002
Lebanese Guidelines

2006
FRAX Lebanon launched

2007
1st Update on Guidelines

2011
Associated Research UNIT for Osteoporosis

2012
FRAX based guidelines

Establish National Priorities and Agenda
Scholars in HeAlth Research Program

SHARP

SHARP Summer Certificate
Master in Sciences for Scholars in Health Research

Capacity Building in Non-Communicable Diseases
At the American University of Beirut

NIH Grant Award
D43TW009118
Supported by NIH FIC and ODS
American University of Beirut

PI, Co-investigators, TAG

Principal Investigator/Program Director
- Ghada El-Hajj Fuleihan, MD, MPH (FM)

Co-investigators/Executive Committee
- Robert, Habib, PHD (FM)-Summer Program Director
- Huda Huijer, PhD (HSON)
- Abla Sibai, PhD (FHS)
- Nahla Hwalla, PhD (FAFS)

Training Advisory Group (TAG)
- Kamal Badr, MD (FM)
- Ali Abu Alfa, MD (FM)
- Huda Zreik, PhD (FHS)

US Collaborators

Harvard Medical School-
Scholars in Clinical Sciences Program: SCIP
HMS-NIH

US TAG Members
- Gordon H. Williams, MD
- Ellen Seely, MD

Harvard School of Public Health
Clinical Effectiveness Program: CEP
Director-co-directors HSPH

Consultants
- Earl Fran Cook, PhD.
- John Orav, PhD
SHARP Mission

“To provide superior didactic education complemented with state-of-the-art interactive and practical training in health research, with a focus on non-communicable diseases research. It is intended for physicians and other health care professionals, to improve and advance the health care agenda for non-communicable diseases in Lebanon and the region.“
About SHARP

- Hybrid between curriculum building and training grant
- Addresses population-oriented and patient-oriented research needs
- Bridges research and academia, clinical practice, management and health policy
## Schema for SHARP Schedule

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**Longitudinal Seminar Series I**

- Bioethics in clinical research, mock IRB/study section, genetics, career development, progress report

**Select Research Project**

**Research Thesis**
SHARP Growth Over Years

SHARP Summer Certificate

* All were recruited internally within AUB due to the tight time line after the program approval in spring 2013.
- 44% of total accepted applicants were Females in 2013, 65% in 2014, and 54% in 2015.
- Regional countries include Bahrain, Egypt, Jordan, KSA, Libya, Syria, Palestine, Pakistan, and UK.
Human Capital National and Regional SHARP Trainees 2013-2015

REGIONAL OUTREACH

43 Summer Certificate graduates, 6 Master Students

Akl et al, Journal of Nutrition and Metabolism 2012
Academic Background of SHARP trainees

Number of Accepted Trainees

- Medical Doctors
- Nurses
- Graduate students (MS, MPH)

Summer 2013:
- Medical Doctors: N=14
- Nurses: N=3
- Graduate students: N=1

Summer 2014:
- Medical Doctors: N=20
- Nurses: N=4
- Graduate students: N=2

Summer 2015:
- Medical Doctors: N=23
- Nurses: N=2
- Graduate students: N=3
Post-doctoral Trainees After SHARP

- MS students at AUB (SHARP, MPH)
- Research Fellows/Residents at AUBMC
- Research Fellows/Residents in Lebanon (non-AUBMC)
- Research Fellows/PhD Student in Europe
- Research Fellows in US Institutions*

- N=35
- N=8 (22%)
- N=2 (6%)
- N=14 (39%)
- N=9 (25%)
- N=2 (6%)

* These top tier US biomedical research institutions include Johns Hopkins University Hospital, Massachusetts General Hospital and Harvard Medical School, Brigham and Women's Hospital, MD Anderson Cancer Center, University of South Carolina Cancer Center, Texas Children Hospital, University of Minnesota, Good Samaritan Hospital
A Paradigm for Capacity Building in NCDs at AUB

Faculty of Medicine (FM)

- CRU 2001
- Clin Epi 2011
- ORU 2010
- VMP 2012
- CaMOP 1997

Faculty Health Sciences (FHS)

- SHARP 2012
- SPARK 2013

Center for Population Health

Faculty of Agriculture, Nutrition and Food Sciences
Challenges to Advancing NCD Agenda in MENA

Challenges to Conduct NCD Research

- Difficulty balancing patient care and research responsibilities
- Expensive and long training time
- Limited mentoring capacity
- Burdensome regulations and paperwork
- Limited funding agencies and low success rate for funding

Limited National Infrastructure and Resources Human and Financial

- Inadequate structured research training - now addressed by SHARP
- Lack of national registries and databases for major outcomes
- Unavailable financial data
- Lack of a national agenda for health care priorities
- Limited resources for health care
Address Challenges & Capitalize on Opportunities

Addressing Challenges

- Secure Capacity building grants and career development awards
- Ensure “Protected time” for research and secure effective mentoring
- Streamline, standardize, and simplify regulatory requirements
- Engage and support National Health Authorities
- Enhance physician knowledge and patient knowledge
- Establish Networks to enhance collaborations, nationally, regionally and internationally
- Establish outcome databases and prospective cohorts

Capitalize on Unique Opportunities

- Little known or published on many NCDs in MENA: open fields for research
- Consanguinity enhances unique genetic and epigenetic research in NCDs
- Establish New Curriculæ: genetics modules, survival analysis.
- Establish new platform for program delivery: e-learning, blended learning
- Train the future Leaders and Policy Makers
- New leadership and interest in creating new and larger funding opportunities in MENA: Lebanon, Qatar, UAE ...

The Global Approach to NCDs from a Program as Nucleus to the Region & the World
AUB Alumni,

We would like to share with you news of the achievements of your Faculty of Medicine and AUBMC. This recognition and impressive achievement reinforces the University's commitment to support its important work and help deliver the ambitious AUBMC 2020 Vision.

The American University of Beirut has ranked among the world’s elite 300 universities and as the highest-ranking university in the Arab region in the field of medicine according to the 2015 Quacquarelli Symonds (QS) World University Rankings by Subject released Wednesday April 29th, 2015. When looking beyond the Arab World, the AUB Faculty of Medicine (AUB FM) ranked fifth overall in a broader area spanning across the MENA, GCC, East Europe, North/Central and East Asia, outranking countries such as Russia, India and Turkey to name a few. See more at:

http://www.aubmc.org/Pages/AUB-Faculty-of-Medicine-Ranks-First-in-the-Arab-World.aspx#sthash.6XnaiC8q.rX0C54JG.dpuf
“Research is not a luxury that is affordable only in times of plenty but is a continuing necessity – and never more so than in hard times.”

*WHO Strategic Directions for Research for Health: Scaling up in the Eastern Mediterranean Region - Global Forum for Health Research, Jan 2009*
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Additional Information
Research Program Major Initiatives
and more on SHARP and other collaborating Programs
VMP, SPARK, ORU
Osteoporosis

Highlights

- Intervention threshold graph for Lebanon
- Automated link to the Lebanese osteoporosis guidelines, through FRAX calculator. Will greatly enhance their application and substantially optimize patient care, targeting therapy to high-risk individuals.

Links

- IOF
- ISCD
- NOF
- ASBMR
- NIH
- FRAX
- NIH-Fogarty International Center
- Bone-Friendly Recipes
- Three Steps to Unbreakable Bones
- OSTEOS Newsletter (latest)
- OSTEOS Newsletter (previous)

News and Events

- Dr. Ghada El-Hajj Fuleihan, Director of the Scholars in Health Research Program (SHARP), is invited to give a presentation on NCDs at the upcoming Fogarty Advisory Board Meeting that will be held on May 12, 2015 at the NIH campus, Bethesda, MD (More).

- Dr. El-Hajj Fuleihan gives an invited webinar presentation as part of NIH FIC Director Virtual Seminars (Read) (Presentation).
## Human Capital
### CaMOP Trainees 1997-2015

#### US Trainees 1993-1997
- Ernest Darkom-Ampem
- Judith Carroll
- Susan Haden
- Lisa Porter
- Ellen Marqusee

#### Trainees (MSc or MPH)
- Amal Abi-Rafeh
- Rania Abou Samra
- Mona Arafat
- Dania Hariri
- Wassan Ibrahim
- Siham Itani
- Nicole Jubran
- Aline Kizirian
- Joyce Maalouf
- Wissam Nasser
- Maya Rahmehe
- Maria Saadeh
- Rola Sabbagh

#### Trainees (MD+ MPH/MSc)
- Asma Arabi**
- Sevag Demerjian
- Haytham Hreybeh
- Mona Mokaddem

#### Trainees (Resident & Fellows)
- Zaher Ajam
- Ghada Ballane
- Hajar Ballout
- Maya Barake*
- Marlene Chakhtoura*
- Ghassan Chamseddine
- Jocelyne Eid
- Hussam El-Ali
- Cynthia Farah
- Ahmad Fawaz
- Nisrine Ghazal
- Mirella Hajj
- Yousra Hawli
- Haytham Hreybeh
- Zeinab Issa
- Najla Itani
- Ziad Kanaan
-Walid Khairallah

#### PhD
- Lea Dib
- Adina Hazzouri
- Maha Hoteit
- Lamis Jomaa**

*SHARP MS Students
** Faculty members
CaMOP Trainees Awards

- **Dr Marlene Chakhtoura** Early Career Forum Travel award, Endocrine Society, 2015

- **Dr. Nisrine Ghazal** third prize, Clinical Research Open House at AUB, 2014


- **Zeinab Issa**, Novo Nordisk Endocrinology Excellence Award Best Research Paper, travel grant to attend ENDO Meeting 2012. Postmenopausal Hormone Therapy and BP.

- **Maya Barake**, Novo Nordisk Endocrinology Excellence Award Best Research Paper, travel grant to attend ENDO Meeting 2011 meeting." 25-Hydroxyvitamin D Assay Variations and Impact on Clinical Decision Making". Basis for QA for Vitamin D

- **Joyce Maalouf**, AUB Dean Thomas Sutherland Award for Graduate Excellence for 2006-2007, for Master thesis entitled: "Interaction between dietary calcium, exercise and leptin and their impact on musculoskeletal parameters in children and adolescents".
Calcium Metabolism and Osteoporosis Program
Research Portfolio

- Conduct epidemiologic studies: retrospective, cross sectional and cohort studies to characterize MBD
- Conduct of vitamin D Randomized Controlled Trials (RCTs) on:
  - in school children, elderly and pregnancy
  - In children and adults with epilepsy
- Conduct of primary and secondary prevention RCTs in:
  - Postmenopausal osteoporosis and osteoporosis in men
  - Premenopausal women with breast cancer
- Data mining of institutional and national databases to identify knowledge gaps and assess health agenda needs to optimize management of osteoporosis and hip fractures
- Conduct and publish landmark systematic reviews, meta-analyses, including Cochrane systematic reviews on these topics as well as on bariatric surgery of direct relevance regionally and internationally

Calcium Metabolism and Osteoporosis Program

- Active Areas of Investigation Include:
  - Osteoporosis
  - Hypovitaminosis D and impact on musculoskeletal health across the lifecycle
  - Women’s health
  - Applications of bone densitometry measurements
  - Secondary causes of bone loss
  - Cancer–induced bone disease
  - Genetic polymorphisms in relevant markers modulating bone diseases including VDR, ER, and CYP2R, etc.
  - Guidelines development and dissemination, nationally and internationally

- Has been recently awarded in 2015 a supplemental grant from Office of Dietary Supplements (ODS) to conduct a comprehensive assessment of the genetics of the vitamin D pathway in the Lebanese, taking advantage of a completed one year randomized double blinded trial in elderly subjects investigating the effect of vitamin D, on 25(OH)D levels and indices of fuel and mineral metabolism.
Calcium Metabolism and Osteoporosis Program
National/Regional Initiatives and Achievements

- Founding a multidisciplinary National Society for Osteoporosis and Metabolic Bone Diseases 2006
- On-Line Fracture risk Calculator for Lebanon in collaboration with WHO FRAX group 2009
- Founding and Leading a National Task force on MBDs to develop and implement a national health priority agenda in this discipline: 2010
- Founding and leading a National Associated Research Unit for capacity building in Clinical Translational Research in MBDs 2011 with collaborations with two other major institutions
- Leading the 2011 International Osteoporosis Foundation (IOF) Middle East & Africa Regional Audit on Epidemiology, Costs and Burden of Osteoporosis
Development and dissemination of international clinical guidelines on osteoporosis and densitometry for the International Society of Densitometry (ISCD) since 2004

Co-Chairing the 2010 FRAX International Initiative for the ISCD and International Osteoporosis Foundation (IOF)

Member of the IOF writing group of Committee of Scientific Advisors on Key Position White Papers: Cancer and Bone and Diabetes and Bone (2014-ongoing)

Co-Chairing the International Task Force on Term Bisphophonate Therapy for the American Society of Bone Mineral Research 2013-2015
Calcium Metabolism and Osteoporosis Program
WHO CC for Metabolic Bone Disorders

AUB-OP Program and WHO CC Center
  Rania Mneimneh, BS
  Ali Hammoudi, BS
  Maya Rahmeh, MSc
  Darrina Bassil, MPH
  Maha Hoteit, MSc
  Samia Mroueh
  Jinane Kronfol
  Nabil Khoury, MD.
  Asma Arabi, MD, MSc
  Elie Akl, MD, MPH, PhD
  Robert Habib, PhD
  Ghada El-Hajj Fuleihan, MD, MPH

OSTEOS Guidelines
  Angela Cheung, MD, PhD.
  Juliet Compston, MD.
  John A. Kanis, MD.
  William Leslie, Md, MSc
  Michael McClung, MD.
  Eric Orwoll, MD.

WHO FRAX: Lebanon
  John A. Kanis, MD.
  Eugene McCloskey, MD.
  Helena Johansson, Ph.D.

ISCD- IOF FRAX International
  Jane Cauley, PhD.
  Marjorie Luckey, MD.

School of Health Sciences
  Ziyad Mahfoud, Ph.D. (WCMC-Q)
  Abla Sibai, Ph.D.

St Joseph University
  Rafic Baddoura, MD, MPH.

Ministry of Health
  Hilda Harb, MPH.
  Walid Ammar, MD.
  Mohammad Khalifeh, MD.

GRANT Support: AUB, St Joseph University, Pharma, Nestle Foundation, LNCSR, WHO National Institutes of Health
Welcome

The Scholars in Health Research Program (SHARP) provides graduates with the required foundation to pursue a career in clinical and translational research, particularly focusing on Non-Communicable Diseases (NCDs). It offers didactic courses and hands-on training in the essential disciplines to conduct quantitative research, namely epidemiology, biostatistics, research ethics, and library science/informatics. SHARP offers a 12 credit summer certificate and a 40 credit MSc. degree, jointly awarded by the Faculty of Medicine and the Faculty of Health Sciences at AUB.

Mission

The Mission of the Scholars in Health Research Program (SHARP) at the American University of Beirut (AUB) is “To provide superior didactic education complemented with state-of-the-art interactive and practical training in health research, with a focus on non-communicable diseases research. It is intended for physicians and other health care professionals, to improve and advance the health care agenda for non-communicable diseases in Lebanon and the region.”
SHARP Faculty

American University of Beirut

PI, Co-investigators, TAG

American University of Beirut

Principal Investigator/Program Director
  – Ghada El-Hajj Fuleihan, MD, MPH (FM)

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  – Huda Huijer, PhD (HSON)
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Scholars in Clinical Sciences Program: SCIP HMS-NIH

US TAG Members
  – Gordon H. Williams, MD
  – Ellen Seely, MD

Harvard School of Public Health
Clinical Effectiveness Program: CEP
Director-co-directors HSPH

Consultants
  – Earl Fran Cook, PhD.
  – John Orav, PhD
SHARP Class 2013

Karine Al Feghali, MD  
Sanaa Badour, MD  
Maya Barake, MD  
Marlene Chakhtoura, MD  
Abdul Karim El Hage Sleiman, MD

Mohamad El Zein, MD  
Mirella Hage, MD  
Rami Kantar, MD  
Samer Masri, MD  
Victor Nauffal, MD

Safaa Ossaily, MD  
Elie Ramly, MD  
Khaled Shawwa, MD  
Maroun Yammine, MD  
Soha Talih, PHD

Mohamad Baydoun, MScn  
Angela Massouh, MScn  
Lara Kahale, BSN  

FM  
FM  
FM  
FM  
FM

FM  
FM  
FM  
FM  
ENG

HSON  
HSON  
FHS
SHARP Class 2014

*Zelnab Abu Yehia, MD
FM

Nour Al Jalbout, MD
FM

Imad Akel, MD
FM

Hind Alameddine, MD
FM

Belal Alrajoub, MSN
HSON

Zeina Ayoub, MD
FM

Sarah Bahouth, MD
FM

Dany Barrak, MD
FM

*Lina EL Bejjani, MD
FM

Ashraf Emara, MSN
HSON

Zein Farhat, MD
FM

Sarah Faour, MD
FM

Fatima Ghaddar, MD
FM/FHS

Elias Ghossoub, MD
FM

*Lana Hamieh, MD
FM
SHARP Class 2014

Ahmad Hatoum, MD
FM

Sameera Helal, MSN
HSON

Gebran Khneizer, MD
FM

Joumana Kmeid, MD
FM

Tamara Lotfi, MD
FM

*Nancy Nakhoul, MD
FM

*Fatima Saad, MD
FM

Eman Sbalty, MD
FM

Neill Singh, MD
FHS

Bouchra Tawk, MD
FM

* SHARP Master of Sciences Candidates.
SHARP Growth Over Years
SHARP Summer Certificate

* Out of 72 applications received for summer 2014, 47 were complete.
^ Out of 58 applications received for summer 2015, 54 were complete.
SHARP Growth Over Years
SHARP Summer Certificate

* All were recruited internally within AUB due to the tight time line after the program approval in spring 2013.
- 44% of total accepted applicants were Females in 2013, 65% in 2014, and 54% in 2015.
- Regional countries include Bahrain, Egypt, Jordan, KSA, Libya, Syria, Palestine, Pakistan, and UK.
Post-doctoral Trainees

(N=36)

- Research Fellows/Residents at AUBMC: N=8 (22%)
- MS students at AUB: N=9 (25%)
- Research Fellows/Residents in Lebanon (non-AUBMC): N=2 (6%)
- Research Fellows in US Institutions*: N=14 (39%)
- Research Fellows/PhD Student in Europe: N=2 (6%)

* These top tier US biomedical research institutions include Johns Hopkins University Hospital, Massachusetts General Hospital and Harvard Medical School, Brigham and Women's Hospital, MD Anderson Cancer Center, University of South Carolina Cancer Center, Texas Children Hospital, University of Minnesota, Good Samaritan Hospital.
Marlene Chakhtoura, SHARP MS student, was selected by the Endocrine Society to receive a travel award to attend Early Career Forum at the Endocrine Society’s 97th Annual Meeting & Expo being held March 4-8, 2015 in San Diego.

Marlene Chakhtoura, SHARP MS student, presents her work at the Annual Meeting of the American Society of Bone and Mineral Research, Houston, September 2014.

Elie Ramly and Dr. Rami Kantar Abstract selected for oral presentation at the upcoming ASBMS Obesity Week 2014 in Boston. The ACS-NSQIP-based study is to be presented as one of the 8 "Top Ranked Paper" sessions at the meeting.

Victor Nauffal, has been selected by the American Heart Association's Council on Cardiovascular Epidemiology and Prevention to participate in the "US Ten day Cardiovascular Epidemiology Seminar".

Sanaa Baddour, Distinction as the author of the highest ranking abstract submitted from Lebanon, American College of Cardiology - ACC 2015.

SHARP Trainees won the Research day 2014 LEBANESE ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE AWARD for the best during the research day April 5, 2014, organized by LeMSIC at the American University of Beirut.

First author V. Nauffal, co-authors K Sleiman, M Yammine, M El Zein, A Kabour, T Schwann mentor R Habib. The first prize was co-shared with Ms Hadla Hariri, mentor Dr. Georges Nemer.
Productivity of SHARP Trainees

Students are publishing in first tier journals and presenting in International Conferences.

Accepted Manuscripts:

Manuscripts in Revision:

Manuscripts in Submission:
Productivity of SHARP Trainees, Cont’d

Accepted Abstracts


• Eight-year Target Lesion Revascularization Rates in Bare Metal Versus First and Second Generation Drug Eluting Stents: Analysis of 22,957 Stented Lesions. Sanaa Badour*Δ, Yumiko Kanei, Kamellia Dimitrova, Joseph Habib, John Fox, Robert Tranbaugh, Thomas Schwann, Samir Alam, Robert Habib*. American College of Cardiology 2015, San Diego, California.

*SHARP Trainees
Ψ received the Early Career Forum travel award to ENDO 2015: Endocrine Society’s 97th Annual Meeting & Expo, March 4-8, 2015 in San Diego
Δ got the highest ranking among abstracts, received from Lebanon, at the American College of Cardiology 2015
Accepted Abstracts, Cont’d


• Drug Eluting Stent Implantation in Multivessel Coronary Artery Disease Reduces the Adverse Effect of Diabetes on Late Outcomes when Compared to Bare Metal Stent. Sanaa Badour*, Kamellia Dimitrova, Yumiko Kanei, Robert Tranbaugh, Mark Hajjar, Ameer Kabour, Thomas Schwann, Robert Habib*. American Heart Association 2014, Chicago (Circulation 2014; 130:A16123).


SHARP MS Trainees Thesis Projects

- **Marlene Chakhtoura**
  “Optimal Dose of Vitamin D Replacement in Middle East and North Africa (MENA) Population Across all Age Groups: a Systematic Review and Meta-analysis of Randomized Controlled Trials.”

- **Maya Barake**
  “Effects of growth hormone therapy on bone mineral density and fractures in adults with osteopenia or osteoporosis and without growth hormone deficiency: a systematic review and meta-analysis.”

- **Karine El-Feghali**

SHARP MS launched Summer 2013
these three trainees are first wave to graduate summer 2015
OTHER CAPACITY BUILDING PROGRAMS AT AUB
Founded in 2012, the Vascular Medicine Program (VMP) at AUB functions as a multidisciplinary unit that utilizes numerous clinical and research resources across campus, and is directed to promote vascular health and reduce the burden of cardiovascular diseases in Lebanon and the region.

The major aims of VMP are to screen and evaluate vascular diseases at AUBMC, unify evidence based guidelines in the treatment of vascular diseases, track and evaluate patient and physician compliance with evidence based practice in the prevention and treatment, and upgrade the current available IT resources and therapeutic/diagnostic technologies including outpatient monitoring and follow-up.

The program plans to develop a national database on cardiovascular diseases and is currently collaborating with Harvard School of Public Health (HSPH) and Lown Scholars Program at HSPH for capacity building in CVD research.

The CVD growing database will be a data source for SHARP trainees to conduct their research on CVDs and advocate for policy changes.
Outcomes Research Unit (ORU)

http://www.aub.edu.lb/FM/CRI/UNITS/Pages/oru.aspx

- The ORU aims at promoting clinical outcomes investigation and scholarly research, developing, managing and reporting on care delivery and performance improvement initiatives, and developing the tools for benchmarking the quality of healthcare delivery at AUBMC.

- It also aims to develop a flexible web-based software solution to build both clinical and research electronic databases for the various interested disciplines and subspecialties.

- ORU has partnered with SHARP and VMP to provide its expertise in training SHARP students on NCDs and providing the necessary IT expertise and platform for building the cardiovascular diseases database for the Vascular Medicine Program.
Center for Systematic Reviews on Health Policy and Systems Research (SPARK)
http://www.aub.edu.lb/spark/Pages/index.aspx

- It was established in 2013 funded by the Alliance for Health Policy and Systems Research at the World Health Organization (WHO).

- The Center is a joint collaboration between the Faculty of Health Sciences (FHS) and the Faculty of Medicine (FM).

- The mission of SPARK is to produce high-quality systematic reviews that respond to health policy and systems priority issues at the national and the regional level.

- The Center develops the capacity of young researchers in the Region in conducting systematic reviews of Health Policy and Systems Research on many topics including NCDs.

- SHARP trainees are required to take the course ”meta-analysis and systematic reviews” offered by faculty of this center prepare a comprehensive study on topics related to NCDs.
“IT WAS IN MY HEART TO HELP A LITTLE BECAUSE I WAS HELPED MUCH”
Lebanese Poet-Writer-Philosopher-Painter- Gebran Khalil Gebran-1883-1931 Boston