

Document 7: Research Impact and Success Stories

This document highlights significant research achievements, funded projects, successful collaborations, and impactful outcomes from the Faculty of Health Sciences. These case studies demonstrate the value created through committee-supported research initiatives.

Research Funding Summary

Cumulative Grant Funding (2016-2026)

Metric	Value
Total Research Funding Secured	>\$500,000 USD
Period	10 academic years (2016-2026)
Sources	CNRS Lebanon, BAU Intramural, International Grants

Funding Sources

Source	Type	Projects Supported
CNRS Lebanon	National	Multiple faculty proposals
BAU Intramural Grants	Internal	Faculty research projects
AUF (Agence Universitaire de la Francophonie)	International	Training and mobility
SSHN (France)	International	Research stays
Erasmus+	EU	OPPM Project (Pharmacogenomics)
International Collaborations	Partnership	Joint research with Harvard, Glasgow, Montpellier

Publication Impact Summary

Publications by Academic Year

Academic Year	Total Publications	Q1 Publications	Q1 Percentage
2019-20	38+	8+	~21%
2020-21	46	18	39%
2021-22	33	15	45%

2022-23	44	18	41%
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High-Impact Publications

Faculty members have published in top-tier journals including:

Journal	Quartile	Department
Critical Reviews in Food Science and Nutrition	Q1	Nutrition
Human Mutation	Q1	MLT
Clinical Chemistry and Laboratory Medicine	Q1	MLT
Genes	Q1	MLT
Nutrients	Q1	Nutrition
European Journal of Nutrition	Q1	Nutrition
Clinical Nutrition	Q1	Nutrition
Food Control	Q1	Nutrition
Food Chemistry	Q1	Nutrition
Nurse Education Today	Q1	Nursing

Success Story 1: FHS Population Cohort

Initiative

Establishment of a Lebanese population cohort for faculty and student research.

Background

In 2017, the Research Committee identified a barrier to faculty research: the need for control populations in case-control studies. Masters students studying disease associations were unable to recruit healthy controls efficiently.

Actions Taken

80. **Siblin Hospital Partnership (2017):** Dr. Said El Shamieh initiated recruitment of general Lebanese individuals at Siblin Hospital, Mount Lebanon.
81. **National Police Hospital Partnership (2017):** Expanded recruitment to include a representative sample from Beirut city.
82. **Biobanking:** Blood samples collected; DNA extraction completed.
83. **Phenotypic Data:** Demographics, lifestyle factors, and health data collected.

Outcomes

Metric	Value
Individuals Recruited (2017)	~100
Current Cohort Size (2026)	~100 (maintained)

Hospitals Involved	2
Research Projects Enabled	Multiple

Impact

- Masters students can now conduct case-control studies using the established cohort as controls
- Faculty research quality improved through access to population-based data
- Foundation laid for longitudinal studies on chronic disease risk factors

Success Story 2: Medical Education Research Program

Initiative

Establishing a medical education research track within the faculty.

Background

Following advice from faculty leadership, the Research Committee identified medical education as a high-potential, low-investment research area.

Actions Taken

84. Concept Mapping Study (2017-18):

- Pilot study conducted on epidemiology course students
- Dr. Germine Al Kassas led implementation
- Questionnaire designed by committee
- IRB approval obtained

85. Team-Based Learning (TBL) Seminar (2018):

- Dr. Nathalie Zougheib from AUB delivered expert training
- Faculty learned TBL implementation strategies

86. Comparative Study:

- TBL vs. concept mapping comparison initiated

Outcomes

Metric	Value
Articles Published	1 (Data in Brief)
Faculty Trained	10+
Courses Modified	Epidemiology
Departments Involved	All 4

Publication

Concept mapping versus traditional teaching method on health sciences students' score. BAU Journal - Health and Wellbeing. 2020.

Authors: Ayman El Khatib, Mirna Fawaz, Germine El Kassas, Said El Shamieh.

Impact

- Established medical education as a recognized research theme within FHS
- Enabled faculty without laboratory resources to contribute to research
- Provided evidence base for curriculum improvements

Success Story 3: 3-Minute Thesis (3MT) Competition

Initiative

Annual research communication competition for postgraduate students.

Background

In 2021, the Research Committee recognized the need to enhance student research visibility and communication skills.

Actions Taken

87. **International Standards Adoption (2021):** Dr. Hiba Deek prepared guidelines based on Queensland University's 3MT framework.

88. **President Approval (2021):** FHS Research Day approved.

89. **First Event (2023):** Pilot competition with external jury.

90. **Expansion (2024):** 26 participants; keynote speaker; 7 awards.

Outcomes

Year	Participants	Departments	Awards
2023	~10	4	Multiple
2024	26	4	7

Features

- External jury for credibility
- People's Choice Award for audience engagement
- Keynote speakers (Dr. Jihane Basbous: "Serendipity in Science")
- Trophies and certificates

Impact

- Students develop presentation and communication skills
- Research visibility increased within and beyond the faculty
- Networking opportunities with external academics
- Student motivation and engagement enhanced

Success Story 4: International Research Collaborations

Active Collaborations

Partner Institution	Country	Research Area	FHS Investigators
Harvard University, Harvard Medical School	USA	Inherited Retinal Diseases	Dr. Said El Shamieh
University of Glasgow	UK	Food Decontamination	Dr. Nada El Darra
Institut de la Vision, Sorbonne University	France	Retinal Genetics	Dr. Said El Shamieh
University of Montpellier	France	Research Collaboration	Dr. Salim Moussa
University of Modena and Reggio Emilia	Italy	Sarcopenia in Elderly	Dr. Marwan El Ghoch
Pavia University	Italy	Eating Disorders	Dr. Marwan El Ghoch
Institute of Sciences of Food Production, CNR	Italy	Mycotoxins	Dr. Nada El Darra
Sharjah University	UAE	Mother-Infant Study	Dr. Leila Itani
Pasteur Institute of Lille	France	Aspergillus Research	Dr. Sara Khalife
Angers University	France	Scedosporium Research	Dr. Sara Mina

Outcomes

- Joint publications in high-impact journals
- Access to advanced technologies and methodologies
- Grant applications with international co-investigators
- Student and faculty exchange opportunities

Success Story 5: Predatory Journals Awareness Campaign Initiative

Faculty-wide education on predatory publishing practices.

Background

The proliferation of predatory journals threatened research integrity and wasted faculty resources.

Actions Taken

91. **Seminar Development (2018):** Dr. Said El Shamieh prepared comprehensive presentation.
92. **Internal Review:** Presented to Research Committee for feedback.
93. **Faculty Presentation (2019):** Delivered to all FHS faculty.
94. **Round Table (2019):** Three-topic discussion on publishing best practices.
95. **Medical Faculties Outreach:** Presentation extended to other faculties.

Topics Covered

96. Choosing the right journal to submit your scientific manuscript
97. Open Access vs. Closed Access: Status and future challenges
98. Handling submitted papers from an editorial point of view

Impact

- Faculty awareness of predatory practices increased
- Publication quality improved (more Q1/Q2 submissions)
- Institutional reputation protected
- Resources saved by avoiding illegitimate publishers

Success Story 76: Genetics of Inherited Diseases Research Program Initiative

Initiative

Comprehensive research program on inherited retinal diseases and genetic disorders.

Background

Dr. Said El Shamieh established a genetics research track focusing on inherited retinal dystrophies (IRDs) and pharmacogenetics.

Research Output

Research Area	Publications	Collaborations
Inherited Retinal Diseases	10+	Institut de la Vision, Harvard
Pharmacogenetics	8+	Multiple international partners
Cardiovascular Genetics	4+	French collaborators

Alzheimer's Disease Genetics	2+	Mediterranean consortium
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Notable Publications

99. **MERTK mutations account for 1.7% of cases with inherited retinal dystrophies.**

Human Mutation. 2018.

100. **Molecular Epidemiology in 591 Italian Proband With Nonsyndromic Retinitis Pigmentosa and Usher Syndrome.** Invest Ophthalmol Vis Sci. 2021.

101. **The genetics of rod-cone dystrophy in Arab countries: a systematic review.** Eur J Hum Genet. 2021.

Impact

- BAU positioned as a center for genetic disease research in Lebanon
- Postgraduate students trained in next-generation sequencing analysis
- Diagnostic capabilities enhanced for Lebanese patients
- International recognition for faculty expertise

Success Story 7: Food Safety and Contaminants Research

Initiative

Comprehensive assessment of food contaminants in Lebanese markets.

Background

Dr. Nada El Darra and colleagues established a food safety research program addressing local and regional concerns.

Research Areas

Area	Projects	Publications
Mycotoxins in Spices	Multiple	3+
Pesticide Residues	Multiple	2+
Antibiotic Residues	Chicken, breast milk	2+
Heavy Metals	Canned foods, water	2+
Food Decontamination	Hurdle technologies	3+

International Collaborations

- University of Glasgow (UK): Decontamination technologies
- Institute of Sciences of Food Production, CNR (Italy): Mycotoxin analysis

Impact

- Evidence base for food safety policy in Lebanon
- Public health awareness increased
- Industry practices informed by research findings
- Postgraduate students trained in analytical methods

Success Story 8: COVID-19 Research Response

Initiative

Rapid research response to the COVID-19 pandemic.

Publications (2020-2021)

Title	Journal	Authors
Are lockdown measures effective against COVID-19?	Frontiers in Public Health	Kharroubi S, Saleh F
COVID-19: Test, test and test	Medical Sciences	Saleh FA, Sleem A
Mesenchymal stem cells in the fight against viruses	Current Research in Translational Medicine	Sleem A, Saleh F
COVID-19 quarantine: Post-traumatic stress symptomatology	Int J Soc Psychiatry	Fawaz M, Samaha A
Effects of Ivermectin on viral outcomes (Pilot Trial)	Viruses	Samaha AA, et al.
Clinical update on mesenchymal stem cells in COVID-19	Am J Translational Res	Saleh FA, Ghezzawi J

Impact

- Rapid contribution to global understanding of pandemic effects
- Mental health impacts on Lebanese population documented
- Treatment options explored through clinical research
- Faculty expertise mobilized for public health emergency

Accreditation and Audit Contributions

AHPGS Visit (November 2023)

The Research Committee contributed to the AHPGS accreditation visit by preparing:

- Research slides documenting faculty achievements
- Publication statistics by quartile
- Research subthemes aligned with SDGs
- Evidence of capacity-building activities

Documentation Prepared

Document	Purpose
Research presentation slides	Committee overview
Publication statistics	Output metrics
Project lists	Ongoing research
Collaboration evidence	International partnerships

Recognition and Awards

Faculty Achievements

Year	Achievement	Recipient
2019	L'Oreal Women in Science Ceremony Participation	Dr. Fatima Saleh
Various	Q1/Q2 Publication Incentives	Multiple faculty
2024	3MT Competition Awards	7 postgraduate students

Future Directions

Based on current research trajectories, the following areas show strong potential for continued impact:

102. **Precision Medicine:** Pharmacogenetics research for personalized treatment
103. **Digital Health:** AI applications in health sciences
104. **Sustainable Food Systems:** Food safety and quality research
105. **Mental Health:** Post-pandemic psychological impact studies
106. **Regenerative Medicine:** Stem cell therapy research