

1. Research and publications

At present, there are 30 funded ongoing research projects in the department. In addition to that there are 6 unfunded research projects, which are mainly pilot studies. Results obtained from ongoing or completed research grants have been published in peer reviewed publications in international scientific journals. In addition to that one book chapter has been published during this academic year. Academic staff members and graduate students presented communications in international or local scientific conferences.

The department has also an active scientific seminars/journal club program. These seminars are a place where junior staff members and graduate students present their research ideas, which are then discussed by all members of staff. During this academic year seven scientific seminars and six journal clubs were presented covering a variety of areas in contemporary research by staff and graduate students during the current year.

Research areas of faculty members:

1. Dr. Zoran B. Redzic, Professor,
Neurophysiology
2. Dr. Naji.S. Al-Zaid, Professor,
Metabolism, Connective Tissue and Cell Biology
3. Dr. Waleed B. Shuaib, Professor,
Neurophysiology
4. Dr. Maie D. Al-Bader, Professor,
Endocrine and Reproductive Physiology
5. Dr. Jasem Ramadan Al-Kandari, Associate Professor,
Exercise Physiology

6. Dr. Marian Turcani, Associate Professor,
Cardiovascular Physiology
7. Dr. Hameed Al-Sarraf, Associate Professor,
Blood-brain barrier and exercise physiology
8. Dr. Abdeslam Mouihate, Associate Professor,
Neuroimmunology
9. Dr. Fawzi Babiker, Associate Professor,
Cardiovascular Physiology
10. Dr. Andreas W. Henkel, Associate Professor,
Neurophysiology
11. Dr. Slava A. Malatiali, Assistant Professor,
Renal Physiology
12. Dr. Ali K. Bourisly, Assistant Professor,
Biomedical Engineering, Bio-imaging
13. Dr. Ali S. Shuaib, Assistant Professor,
Biomedical Engineering, Bio-imaging
14. Dr. Laila K. Habib, Assistant Professor,
Biomedical Engineering, Bio-imaging
15. Dr. Raed O.M. Al-Hawaj, Assistant Professor,
Cardiovascular Physiology
16. Dr. Salwa A.A. Abdullah, Assistant Professor,

Cardiovascular Physiology

17. Dr. Sonia M. Hashimi, Assistant Professor,
Neurophysiology
18. Dr. Noor Al-Sabeeh, Assistant Professor,
Metabolism, Diabetes and Gastrointestinal Physiology
19. Dr. Fatemah S. Safar, Assistant Professor,
General Physiology and Neurosciences

Research publications in the year 2018/2019.

1. Kalakh S. and Mouihate A. (2019). Enhanced remyelination during late pregnancy: involvement of the GABAergic system. *Scientific Reports* 22;9(1):7728. 1-16.
2. Mouihate A., Kalakh S., Al-Mutairi R. and Alashqar A. (2019). Prenatal Inflammation Dampens Neurogenesis and Enhances Serotonin Transporter Expression in the Hippocampus of Adult Female Rats. *Medical Principles and Practice* DOI: 10.1159/000499658.
3. Abul M., Al-Bader M.D. and Mouihate A. (2019). Exposure to synthetic glucocorticoids during pregnancy alters the expression of p73 gene variants in fetal brains in a sex-specific manner. *Brain Research* 1707: 117-123
4. Identification of a New de Novo Mutation Underlying Regressive Episodic Ataxia Type I. Karalok ZS, Megaro A, Cenciarini M, Guven A, Hasan SM, Taskin BD, Imbrici P, Ceylaner S, Pessia M, D'Adamo MC. *Front Neurol.* 2018 Jul 25;9:587.
5. Commentary: A channelopathy mutation in the voltage-sensor discloses contributions of a conserved phenylalanine to gating properties of Kv1.1 channels and ataxia.
6. Hasan S, Hunter T, Hunter G, Pessia M, D'Adamo MC. *Front Cell Neurosci.* 2018 Jun 20;12:174.
7. Henkel, A.W., Al-Abdullah, L., Al-Qallaf, M.S., and Redzic, Z.B. (2019) Quantitative determination of cellular- and neurite motility speed in dense cell cultures. *Frontiers in Neuroinformatics*, 13(15), DOI 10.3389/fninf.2019.00015.

8. Henkel, A.W., Mouihate, A., and Welzel O. Delayed release kinetics of FM1-43 from hippocampal synapses reveal a sequential ‘kiss-and-run’ - ‘full collapse fusion’ mechanism. *Frontiers in Neurosciences*, 2019, 13, 1047.
9. Ali K. Bourisly, Ali Shuaib; Sex differences in Electrophysiology: P200 Event-Related Potential Evidence; *Translational Neuroscience* 2018; 9: 72–77.
10. Anna Abraham, Sarah Asquith, Halima Ahmed, Ali K. Bourisly; Comparing the Efficacy of Four Brief Inductions in Boosting Short-Term Creativity; *Journal of Cognitive Enhancement*. 2019, 3(1), 85–93.
11. Ali K. Bourisly, Ali Shuaib; Neurophysiological Effects of Aging: A P200 ERP Study; *Translational Neuroscience*. 2018; 9: 61–66.
12. Ali Shuaib, Ali K. Bourisly; Photobiomodulation Optimization for Spinal Cord Injury Rat Phantom Model; *Translational Neuroscience*. 2018, 22;9:67-71.
13. Sami Asfar, Ali Shuaib, Fatemah Al-Otaibi, Sora S Asfar, Narayana Kilarkaje.”A New Technique to Induce Experimental Myointimal Hyperplasia” *Medical Principles and Practice*, 2018 (27)5: 415-419
14. Jahja Kokaj, Ali Shuaib, Yagoub Makdisi, Remya Nair and Mathew Joseph. Femtosecond laser-based deposition of nanoparticles on a thin film and its characterization. *Kuwait Journal of Science* 45(4):37-45 · January 2018
15. Turcani M, Ghadhanfar E. Biphasic changes in spontaneous cardiovagal baroreflex sensitivity during passive hyperthermia. *Sci Rep*. 2019 Feb 22;9(1):2586. doi: 10.1038/s41598-019-39172-8.
16. Samy ZA, Al-Abdullah L, Turcani M, Craik J, Redzic Z. Rat astrocytes during anoxia: Secretome profile of cytokines and chemokines. *Brain Behav*. 2018 Jul;8(7):e01013. doi: 10.1002/brb3.1013.

Book chapters:

1. Margherita Di Paola, Ali K. Bourisly; Structural MRI in Neurodegenerative non-Alzheimer’s Dementia; Book Title: *Brain Morphometry*; Publisher: Humana Press -/ (Springer New York).

1. Physical Facilities

The teaching facilities available at the Faculty of Medicine and Health Sciences Centre are utilized by the members of the department for delivering lectures, seminars, PBLs, clinical skills, tutorials, small group teachings and practical, etc. In addition, the following physical facilities are used in the Department for teaching, research and staff offices:

Room Number	Designation	Usage
329	Animal preparation / Telemetry room	Utility Room
330	Molecular Cardiology Lab	Lab
331	Neuro Cardiology Lab	Lab
331A	Office - Dr. Marian Turcani	Office
332	Office - Dr. Salwa Abdullah	Office
334A	Office - Teaching Assistants	Office
334B	Office - Teaching Assistants	Office
335	Electro Physiology Lab	Lab
335A	Office - Dr. Raed Al-Hawaj	Office
335B	Office - Dr. Andreas Henkel	Office
	Cold Room	Cold Room
336	Exercise in health and disease lab	Lab
336A	Office - Dr. Hameed Al Sarraf	Office
337	Neuro Physiology Lab	Lab
337A	Office - Prof. Waleed Shuaib	Office
338	Office - Dr. Slava Malatiali	Office
339	Office - Teaching Assistants	Office
340	Stroke Research / Renal Physiology Lab	Lab
340A	Office - Prof. Zoran Redzic	Office

341	General Physiology and Cell Culture Lab	Lab
341A	Office - Dr. Nour Al-Sabeeh	Office
341B	Office - Dr. Fatemah Safer	Office
342	Department office – Executive Secretary	Office
342B	Small Meeting Room	Meeting Room
342C	Office for the Department Chairperson	Office
343	Exercise Physiology Lab	Lab
343A	Office - Teaching Assistants	Office
344	Exercise Physiology Lab	Lab
344A	Work station for graduate students	Lab
344B	Office - Dr. Jassem Ramadan	Office
345	Office - Chief Technician	Office
346	Neuro Immunology Lab	Lab
346A	Office - Dr. Abdeslam Mouihate	Office
347	Office - Prof. Naji Al-Zaid	Office
348	Cardiovascular Lab	Lab
348A	Office - Dr. Fawzi Babikker	Office
349	Office - Dr. Sonia Al-Hashimi	Office
350	Dark Room – Photography	Lab – Dark Room
351	Dark Room – Fluorescence Microscope & Imaging System	Lab - Dark Room
352	Molecular Endocrinology Lab	Lab
352A	Office - Prof. Maie D. Al-Bader	Office
353	Seminar Room	Seminar/Meeting Room