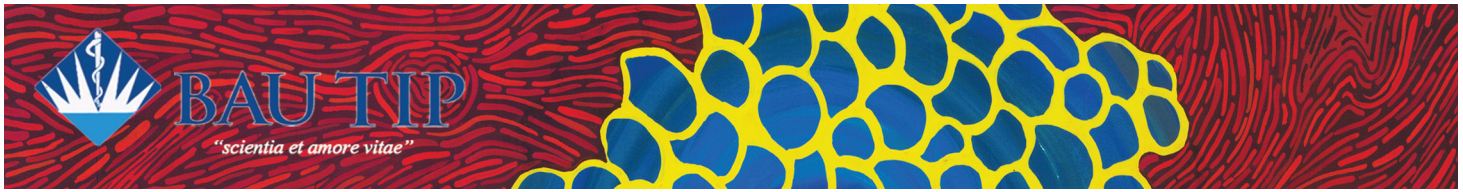


CERTIFICATE OF ATTENDANCE

This certificate is presented to

CEM YALAZA

for attending the

International Molecular Medicine Symposium by the Bosphorus

16-18 May 2019 Bahcesehir University, Istanbul, TURKEY

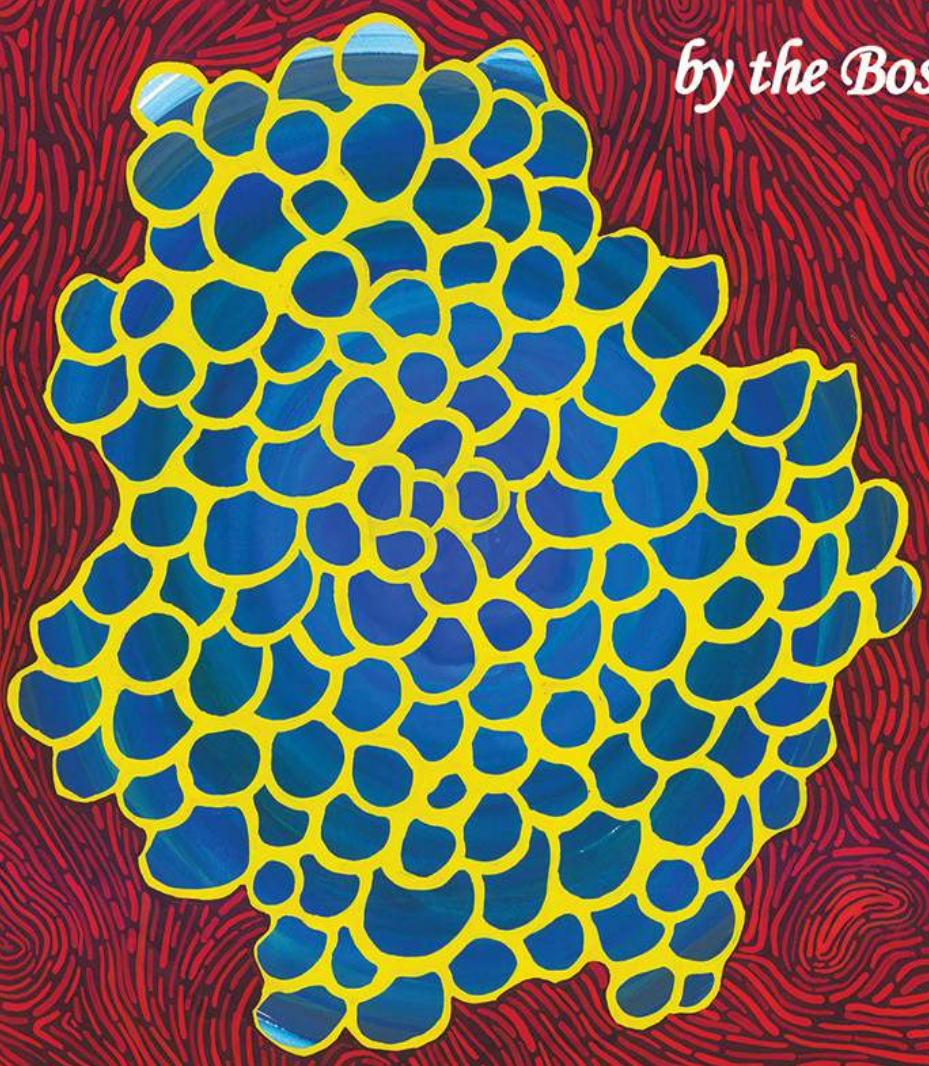
Dr. Ozge Sezin SOMUNCU
Symposium Chairman

BAU TIP

"scientia et amore vitae"

International Molecular Medicine Symposium

by the Bosphorus



ABSTRACT BOOK

www.intmedsym.org

INTERNATIONAL MOLECULAR MEDICINE SYMPOSIUM

by the Bosphorus
16 – 18 May 2019

Bahçeşehir University, Beşiktaş South Campus
Istanbul , Turkey

POSTER PRESENTATION / *Cell Function* – 016

Angiogenesis, Apoptosis and Energy Metabolism in Adenomyosis

Yalaza Cem[1], Canacankatan Necmiye[2], Gürses İclal[3], Aytan Hakan[4]

[1]*Medical Services and Techniques, Vocational School, Toros University, Mersin/Turkey*
[2]*Department of Biochemistry, Faculty of Pharmacy, Mersin University, Mersin/Turkey*
[3]*Department of Pathology, Cerrahpaşa Faculty of Medicine, Istanbul University, Fatih/İstanbul*
[4]*Department of Obstetrics and Gyneacology, Faculty of Medicine, Mersin University, Mersin/Turkey*

Objective: Adenomyosis is a benign uterine disease resulting from myometrial invasion of the endometrial gland and stroma. In this study, angiogenesis, apoptosis and energy metabolism were investigated in patients with adenomyosis.

Materials-Methods: A retrospective study was performed using paraffin archival tissues. Three groups were included in this study: Group I; adenomyosis tissue, Group II; eutopic endometrium tissue of patients with adenomyosis, Control Group III; endometrial tissue of individuals without adenomyosis. Vascular endothelial growth factor (VEGF) and Hypoxia-inducible factor 1-alpha (HIF-1A) expressions were evaluated as angiogenesis markers, B-cell lymphoma 2 (Bcl-2), caspase-9 and caspase-3 were investigated as apoptotic markers and Isocitrate dehydrogenase 1 (IDH1) expression was also examined as energy metabolism marker. Gene expression of all markers were determined by RT-PCR.

Results: VEGF expression were found to be increased in adenomyosis tissue according to the control group and euthopic endometrial tissue of adenomyosis patients ($p < 0.05$). Bcl-2 expression was found to be increased in the adenomyosis tissue compared to the euthopic endometrial tissues. It was determined that expression of IDH1 was significantly decreased in the adenomyosis tissue and in the eutopic endometrium tissues of the adenomyosis patients compared to the Control Group. Although no significant difference was found in HIF-1A expression between study groups, a positive correlation was stated between VEGF and HIF-1A in adenomyosis tissue samples (Group I) (64%, $p < 0.05$).

Conclusion: As a conclusion; these results point out that VEGF, HIF-1A, Bcl-2 and IDH1 may be associated with etiology of adenomyosis.

Keywords: Adenomyosis, VEGF, Bcl-2, IDH1, HIF-1A