

## **Department of Physiology**

### **Supervisors**

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### **Research Areas:**

Gastrointestinal motility and peptides

Acute and chronic Inflammation

Diabetes and obesity

Exercise Physiology

Microcirculation and cardiovascular risk factors

Oxidative stress

### **Recent Publications (January 2013- March 2017)**

- Bihter Gürler E, Özbeyle D, Buzcu H, Bayraktar S, Carus İ, Dağ B, Geriş Y, Jeral S, Yeğen BÇ. Natural sweetener agave inhibits gastric emptying in rats by a cholecystokinin-2- and glucagon like peptide-1 receptor-dependent mechanism. *Food Funct.* 2017 Feb 22;8(2):741-745. doi: 10.1039/c6fo01438k.
- Koyuncuoğlu T, Vızdıklar C, Üren D, Yılmaz H, Yıldırım Ç, Atal SS, Akakın D, Kervancıoğlu Demirci E, Yüksel M, Yeğen BÇ. Obestatin improves oxidative brain damage and memory dysfunction in rats induced with an epileptic seizure. *Peptides.* 2017 Apr;90:37-47. doi: 10.1016/j.peptides.2017.02.005.
- Memisoglu A, Kolgazi M, Yaman A, Bahadir E, Sirvancı S, Yeğen BÇ, Ozek E. Neuroprotective Effect of Erythropoietin on Phenylhydrazine-Induced Hemolytic Hyperbilirubinemia in Neonatal Rats. *Neurochem Res.* 2017 Apr;42(4):1026-1037. doi: 10.1007/s11064-016-2135-2.
- Cerit KK, Karakoyun B, Yüksel M, Ercan F, Tuğtepe H, Daglı TE, Yeğen BÇ. Halofuginone Alleviates Burn-Induced Hepatic and Renal Damage in Rats. *J Burn Care Res.* 2017 Jan/Feb;38(1): e384-e394. doi: 10.1097/BCR.0000000000000400.
- Kolgazi M, Cantali-Ozturk C, Deniz R, Ozdemir-Kumral ZN, Yuksel M, Sirvancı S, Yeğen BÇ. Nesfatin-1 alleviates gastric damage via direct antioxidant mechanisms. *J Surg Res.* 2015 Jan;193(1):111-8. doi: 10.1016/j.jss.2014.06.057. Epub 2014 Jul 1.

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- Kasımay Çakır Ö, Özbeysi D, Şenel E, Contuk G, Velioğlu Öğünç A, Çetineliş Ş, Yeşen BC. Effect of moderate or high intensity exercise on hypothyroid rats exposed to acute stress. *J Sports Med Phys Fitness.* 2016 Jul 13.
- Özdemir Kumral ZN, Kolgazi M, Üstünova S, Kasımay Çakır Ö, Çevik ÖD, Şener G, Yeşen BC. Estrogen receptor agonists alleviate cardiac and renal oxidative injury in rats with renovascular hypertension. *Clin Exp Hypertens.* 2016;38(6):500-9. doi: 10.3109/10641963.2015.1116550.
- Ekiz A, Özdemir-Kumral ZN, Erşahin M, Tuğtepe H, Öğünç AV, Akakın D, Kıran D, Özsavci D, Biber N, Hakan T, Yeşen BC, Şener G, Toklu HZ. Functional and structural changes of the urinary bladder following spinal cord injury; treatment with alpha lipoic acid. *Neurorol Urodyn.* 2016 Aug 4. doi: 10.1002/nau.23083.
- Solmaz A, Bahadır E, Gülcücek OB, Yiğitbaş H, Çelik A, Karagöz A, Özsavci D, Şirvancı S, Yeşen BC. Nesfatin-1 improves oxidative skin injury in normoglycemic or hyperglycemic rats. *Peptides.* 2016 Apr; 78:1-10. doi: 10.1016/j.peptides.2015.12.006.
- Özdemir-Kumral ZN, Özbeysi D, Özdemir AF, Karaaslan BM, Kaytaz K, Kara MF, Tok OE, Ercan F, Yeşen BC. Protective Effect of Nicotine on Sepsis-Induced Oxidative Multiorgan Damage: Role of Neutrophils. *Nicotine Tob Res.* 2016 Aug 3. pii: ntw198.
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- Pazar A, Kolgazi M, Memişoğlu A, Bahadır E, Sirvancı S, Yaman A, Yeşen BC, Ozek E. The neuroprotective and anti-apoptotic effects of melatonin on hemolytic hyperbilirubinemia-induced oxidative brain damage. *J Pineal Res.* 2016 Jan;60(1):74-83. doi: 10.1111/jpi.12292.
- Şen LS, Karakoyun B, Yeşen C, Akkiprik M, Yüksel M, Ercan F, Özer A, Yeşen BC. Treatment with either obestatin or ghrelin attenuates mesenteric ischemia-reperfusion-induced oxidative injury of the ileum and the remote organ lung. *Peptides.* 2015 Sep;71:8-19.
- Koç M, Kumral ZN, Özkan N, Memi G, Kaçar Ö, Bilsel S, Çetineliş Ş, Yeşen BC. Obestatin

improves ischemia/reperfusion-induced renal injury in rats via its antioxidant and anti-apoptotic effects: role of the nitric oxide. *Peptides*. 2014 Oct; 60:23-31. doi: 10.1016/j.peptides.2014.07.019.

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- Pamukcu O, Kumral ZN, Ercan F, Yegen BC, Ertem D. Anti-inflammatory effect of obestatin and ghrelin in dextran sulfate sodium-induced colitis in rats. *J Pediatr Gastroenterol Nutr*. 2013 Aug;57(2):211-8. doi: 10.1097/MPG.0b013e318294711e.
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- Memisoglu A, Kolgazi M, Yaman A, Bahadir E, Sirvancı S, Yeğen BC, Ozek E. Neuroprotective Effect of Erythropoietin on Phenylhydrazine-Induced Hemolytic Hyperbilirubinemia in Neonatal Rats. *Neurochem Res*. 2016 Dec 19.
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