*Seu modelo de prova está na página seguinte

# Curso de Inglês Instrumental Online

preparatório para Provas de Proficiência do Mestrado e Doutorado com Certificado de Proficiência

SAIBA MAIS

**MINISTÉRIO DA EDUCAÇÃO UNIVERSIDADE FEDERAL DO PAMPA**

**PROGRAMA DE PÓS-GRADUAÇÃO EM BIOQUÍMICA**

**EDITAL Nº 80 / 2016**

**SELEÇÃO PARA MESTRADO NO PPG BIOQUÍMICA PARA INGRESSO NO 2º SEMESTRE DE 2016**

**PROVA DE SUFICIÊNCIA EM LÍNGUA INGLESA (VALOR MÁXIMO 10 PONTOS)**

**NOME DO CANDIDATO:**

**ASSINATURA:**_____

O objetivo desta prova é avaliar o conhecimento em língua inglesa dos candidatos ao Programa de Pós-Graduação em Bioquímica, nível MESTRADO, Turma 2016/2. O tempo de duração da prova é de 01 (uma) hora. É permitido o uso de dicionário inglêsportuguês ou inglês-inglês, desde que sejam dicionários impressos.

Leia o abstract a seguir, extraído do artigo "**Oxidative stress and its relation to glycemic control in patients of type 2 diabetes mellitus**", que foi publicado na revista International Journal of Medical Science and Public Health, volume 5(6), páginas 1173-1177, em 2016.

Diabetes mellitus (DM) is one of the most frequent chronic diseases worldwide and is characterized by absolute or relative deficiencies in insulin secretion and/or insulin action associated with chronic hyperglycemia. This study was conducted with an objective to evaluate oxidative stress in patients of DM and correlate it with glycemic control. A total of 90 subjects of both sex groups, aged between 45–60 years were enrolled for this study. Of 90 subjects, 60 were patients with type 2 diabetes and 30 were healthy without diabetes. Glycemic status was categorized as good glycemic control if glycated hemoglobin (HbA1c) < 0.0001). The MDA level in diabetic patients with good glycemic control was increased as compared with nondiabetic controls (p = 0.0186) whereas the differences of HbA1c level between diabetic with good glycemic control and nondiabetic control were statistically insignificant (p = 0.3297). The HbA1c and MDA levels in diabetic patients with poor glycemic control were increased compared with diabetic patients with good glycemic control (p < 0.0001). In all the studied groups, MDA was positively correlated with HbA1c. The study suggests that MDA and antioxidants should be measured along with routine parameters of disease and antioxidants should be incorporated in medication given to diabetic patients so that it can counterbalance the oxidative stress produced during diabetes.

Responda, em português, as seguintes questões:

1. Qual foi o objetivo do presente trabalho?

2. Quais os parâmetros bioquimicos que estão correlacionados com a glicemia?

3. Quais as conclusões deste estudo?

MINISTÉRIO DA EDUCAÇÃOUNIVERSIDADE FEDERAL DO PAMPA
PROGRAMA DE PÓS-GRADUAÇÃO EM BIOQUÍMICA

**EDITAL Nº 321/2016**

**SELEÇÃO PARA MESTRADO NO PPG BIOQUÍMICA PARA INGRESSO NO 1º SEMESTRE DE 2017**

**PROVA DE INTERPRETAÇÃO DE TEXTO EM LÍNGUA INGLESA (PESO 10,0)**

**NOME DO CANDIDATO:**
**ASSINATURA:**_____

O objetivo desta prova é avaliar o conhecimento em língua inglesa dos candidatos ao Programa de Pós-Graduação em Bioquímica, nível Mestrado, Turma 2017/1. O tempo de duração da prova é de 02 (duas) horas. É permitido o uso de dicionário inglês-português ou inglês-inglês.

Leia o abstract a seguir, extraído do artigo "**The Protective Role of Mitochondrial Ferritin on Erastin-Induced Ferroptosis**", publicado na revista Frontiers in Aging Neuroscience (doi: 10.3389/fnagi.2016.00308).

**Abstract**

Ferroptosis, a newly identified form of regulated cell death, is characterized by overwhelming iron-dependent accumulation of lethal lipid reactive oxygen species (ROS). Preventing cellular iron overload by reducing iron uptake and increasing iron storage may contribute to inhibit ferroptosis. Mitochondrial ferritin (FtMt) is an iron-storage protein that is located in the mitochondria, which has a significant role in modulating cellular iron metabolism. Recent studies showed that FtMt played inhibitory effects on oxidative stress-dependent neuronal cell damage. However, the potential role of FtMt in the progress of ferroptosis in neuronal cells has not been studied. To explore this, we established ferroptosis models of cell and drosophila by erastin treatment. We found that overexpression of FtMt in neuroblastoma SH-SY5Y cells significantly inhibited erastin-induced ferroptosis, which very likely was achieved by regulation of

iron homeostasis. Upon erastin treatment, significant increases of cellular labile iron pool (LIP) and cytosolic ROS were observed in wild-type SH-SY5Y cells, but not in the FtMt-overexpressed cells. Consistent with that, the alterations of iron-related proteins in FtMt-overexpressed cells were different from that of the control cells. We further investigated the role of FtMt in erastin-induced ferroptosis in transgenic drosophila. We found that the wild-type drosophilas fed an erastin-containing diet didn't survive more than 3 weeks. In contrast, the FtMt overexpressing drosophilas fed the same diet were survival very well. These results indicated that FtMt played a protective role in erastin-induced ferroptosis.

**Questões**

1. O que o autor propõe com este trabalho?

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2. Qual(is) é(são) o(s) principal(is) achado(s) do autor?

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3. Qual(is) é(são) a(s) conclusão(ões) do trabalho mencionada(s) no texto?

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DO PAMPA
PROGRAMA DE PÓS-GRADUAÇÃO EM BIOQUÍMICA
**EDITAL Nº200 / 2015**

**SELEÇÃO PARA MESTRADO NO PPG BIOQUÍMICA PARA INGRESSO NO 1º SEMESTRE DE 2016**

**PROVA DE INTERPRETAÇÃO DE TEXTO EM LÍNGUA INGLESA (PESO 10,0)**

**NOME DO CANDIDATO:**
**ASSINATURA:**_____

O objetivo desta prova é avaliar o conhecimento em língua inglesa dos candidatos ao Programa de Pós-Graduação em Bioquímica, nível Mestrado, Turma 2016/1. O tempo de duração da prova é de 02 (duas) horas. É permitido o uso de dicionário inglês-português ou inglês-inglês.

Leia o abstract a seguir, extraído do artigo "Therapeutic potentials of human adipose-derived stem cells on the mouse model of Parkinson's disease", publicado na revista Neurobiology of Aging, volume 36, páginas 2885-2892 de 2015.

**Abstract**

The treatment of Parkinson's disease (PD) using stem cells has long been the focus of many researchers, but the ideal therapeutic strategy has not yet been developed. The consistency and high reliability of the experimental results confirmed by animal models are considered to be a critical factor in the stability of stem cell transplantation for PD. Therefore, the aim of this study was to investigate the preventive and therapeutic potential of human adipose-derived stem cells (hASC) for PD and was to identify the related factors to this therapeutic effect. The hASC were intravenously injected into the tail vein of a PD mouse model induced by 6-hydroxydopamine. Consequently, the behavioral performances were significantly improved at 3 weeks after the injection of hASC. Additionally, dopaminergic neurons were rescued, the number of structure-modified mitochondria was decreased, and mitochondrial complex

I activity was restored in the brains of the hASC-injected PD mouse model. Overall, this study underscores that intravenously transplanted hASC may have therapeutic potential for PD by recovering mitochondrial functions.

**Questões**

1. O que o autor propõe com este trabalho?

2. Qual(is) é(são) o(s) principal(is) achado(s) do autor?

3. Qual(is) é(são) a(s) conclusão(ões) do trabalho mencionada(s) no texto?

MINISTÉRIO DA EDUCAÇÃO

UNIVERSIDADE FEDERAL DO PAMPA

PROGRAMA DE PÓS-GRADUAÇÃO EM BIOQUÍMICA

**EDITAL Nº 218 / 2013**

**SELEÇÃO PARA MESTRADO NO PPG BIOQUÍMICA PARA INGRESSO NO 1º SEMESTRE DE 2014**

**PROVA DE SUFICIÊNCIA EM LÍNGUA INGLESA (PESO 1,00)**

**NOME DO CANDIDATO:**

**ASSINATURA:**_____

O objetivo desta prova é avaliar o conhecimento em língua inglesa dos candidatos ao Programa de Pós-Graduação em Bioquímica, nível Mestrado, Turma 2014/1. O tempo de duração da prova é de 02 (duas) horas. É permitido o uso de dicionário inglês-português ou inglês-inglês.

Será considerado eliminado nessa etapa o candidato que obtiver desempenho inferior a 50%.

Leia o abstract a seguir, extraído do artigo “The role of oxidative stress in high glucose-induced apoptosis in neonatal rat cardiomyocytes”, publicado na revista Experimental Biology and Medicine, volume 238, páginas 898-902 de 2013.

**Abstract**

Accumulating evidence has demonstrated that apoptosis plays a critical role in the pathogenesis of diabetic cardiomyopathy. However, the exact molecular mechanisms by which hyperglycaemia induces cardiomyocyte apoptosis are not fully understood. The present study was designed to investigate the role of oxidative stress in high glucose-induced apoptosis in cultured neonatal rat cardiomyocytes. The MTT assay was used to detect the viability of cardiomyocytes exposed to different concentrations of glucose. Oxidative stress was evaluated by measuring intracellular reactive oxygen species with 2′,7′-dichlorofluoresce diacetate staining and by detecting malondialdehyde and superoxide dismutase in the supernatant of culture media. Cardiomyocyte apoptosis was determined by flow cytometry and confocal laser scanning microscopy with Annexin V/PI staining. Our results showed that high glucose can induce oxidative stress and promote apoptosis in neonatal rat cardiomyocytes and the antioxidant can protect against high glucose-induced apoptosis, which suggests that oxidative stress is involved in high glucose-induced cardiomyocyte apoptosis. Furthermore, caspase-3 was found to be activated in the process of high glucose-

induced oxidative stress, which subsequently contributes to increased apoptosis in neonatal rat cardiomyocytes. In conclusion, our study demonstrates that oxidative stress is involved in high glucose-induced cardiomyocyte apoptosis via activation of caspase-3.

**Questões**

1. Traduza o abstract acima para o português.
2. Qual o objetivo do trabalho?
3. Quais os efeitos da glicose sobre o tecido estudado?

MINISTÉRIO DA EDUCAÇÃO

UNIVERSIDADE FEDERAL DO PAMPA

PROGRAMA DE PÓS-GRADUAÇÃO EM BIOQUÍMICA

**EDITAL Nº 218 / 2013**

**SELEÇÃO PARA MESTRADO NO PPG BIOQUÍMICA PARA INGRESSO NO 1º SEMESTRE DE 2014**

**PROVA DE SUFICIÊNCIA EM LÍNGUA INGLESA (PESO 1,00)**

**NOME DO CANDIDATO:**

**ASSINATURA:**_____

O objetivo desta prova é avaliar o conhecimento em língua inglesa dos candidatos ao Programa de Pós-Graduação em Bioquímica, nível Mestrado, Turma 2014/1. O tempo de duração da prova é de 02 (duas) horas. É permitido o uso de dicionário inglês-português ou inglês-inglês.

Será considerado eliminado nessa etapa o candidato que obtiver desempenho inferior a 50%.

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**Abstract**

Accumulating evidence has demonstrated that apoptosis plays a critical role in the pathogenesis of diabetic cardiomyopathy. However, the exact molecular mechanisms by which hyperglycaemia induces cardiomyocyte apoptosis are not fully understood. The present study was designed to investigate the role of oxidative stress in high glucose-induced apoptosis in cultured neonatal rat cardiomyocytes. The MTT assay was used to detect the viability of cardiomyocytes exposed to different concentrations of glucose. Oxidative stress was evaluated by measuring intracellular reactive oxygen species with 2′,7′-dichlorofluoresce diacetate staining and by detecting malondialdehyde and superoxide dismutase in the supernatant of culture media. Cardiomyocyte apoptosis was determined by flow cytometry and confocal laser scanning microscopy with Annexin V/PI staining. Our results showed that high glucose can induce oxidative stress and promote apoptosis in neonatal rat cardiomyocytes and the antioxidant can protect against high glucose-induced apoptosis, which suggests that oxidative stress is involved in high glucose-induced cardiomyocyte apoptosis. Furthermore, caspase-3 was found to be activated in the process of high glucose-

induced oxidative stress, which subsequently contributes to increased apoptosis in neonatal rat cardiomyocytes. In conclusion, our study demonstrates that oxidative stress is involved in high glucose-induced cardiomyocyte apoptosis via activation of caspase-3.

**Questões**

1. Qual o objetivo do trabalho?
2. Como o estresse oxidativo foi mensurado?
3. Quais os efeitos da glicose sobre o tecido estudado?

MINISTÉRIO DA EDUCAÇÃO

UNIVERSIDADE FEDERAL DO PAMPA

PROGRAMA DE PÓS-GRADUAÇÃO EM BIOQUÍMICA

**EDITAL Nº 199 / 2014**

**SELEÇÃO PARA MESTRADO NO PPG BIOQUÍMICA**

**PARA INGRESSO NO 1º SEMESTRE DE 2015**

**PROVA DE SUFICIÊNCIA EM LÍNGUA INGLESA (VALOR MÁXIMO 10,00)**

**NOME DO CANDIDATO:**

**ASSINATURA:_____**

O objetivo desta prova é avaliar o conhecimento em língua inglesa dos candidatos ao Programa de Pós-Graduação em Bioquímica, nível MESTRADO, Turma 2015/1. O tempo de duração da prova é de 01 (uma) hora. É permitido o uso de dicionário inglês-português ou inglês-inglês, desde que sejam dicionários impressos.

Leia o abstract a seguir, extraído do artigo “Oxidative stress and genetic markers of suboptimal antioxidant defense in the aging brain: a theoretical review”, que foi publicado na revista Reviews in the Neurosciences, volume 25(6), páginas 805-819, em 2014 [doi: 10.1515/revneuro-2014-0046].

**Abstract**
Normal aging involves a gradual breakdown of physiological processes that leads to a decline in cognitive functions and brain integrity, yet the onset and progression of decline are variable among older individuals. While many biological changes may contribute to this degree of variability, oxidative stress is a key mechanism of the aging process that can cause direct damage to cellular architecture within the brain. Oligodendrocytes are at a high risk for oxidative damage due to their role in myelin maintenance and production and limited repair mechanisms, suggesting that white matter may be particularly vulnerable to oxidative activity. Antioxidant defense enzymes within the brain, such as superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GPx), and glutathione-S-transferase (GST), are crucial for breaking down the harmful end products of oxidative phosphorylation. Previous studies have revealed that allele variations of polymorphisms that encode these antioxidants are associated with abnormalities in SOD, CAT, GPx, and GST activity in the central nervous system. This review will focus on the role of oxidative stress in the aging brain and the impact of decreased antioxidant defense on brain integrity and cognitive function. Directions for future research investigations of antioxidant defense genes will also be discussed.

Responda, em português, as seguintes questões:

1. Qual foi o objetivo do presente trabalho?
2. Por que as defesas antioxidantes são importantes no contexto que o presente trabalho discute?
3. Por que os oligodendrócitos estão em maior risco de dano oxidativo no contexto do presente trabalho?
4. Que marcadores bioquímicos de estresse oxidativo são mencionados no abstract do presente trabalho?
5. Traduza a seguinte passagem do abstract, do inglês para o português:

   “Normal aging involves a gradual breakdown of physiological processes that leads to a decline in cognitive functions and brain integrity, yet the onset and progression of decline are variable among older individuals. While many biological changes may contribute to this degree of variability, oxidative stress is a key mechanism of the aging process that can cause direct damage to cellular architecture within the brain.”