

**ЗАПОРІЗЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ**

**ЗБІРКА ТЕЗ  
ВСЕУКРАЇНСЬКОЇ НАУКОВО-ПРАКТИЧНОЇ  
КОНФЕРЕНЦІЇ МОЛОДИХ ВЧЕНИХ ТА СТУДЕНТІВ  
З МІЖНАРОДНОЮ УЧАСТЮ**

**«СУЧАСНІ АСПЕКТИ  
МЕДИЦИНИ І ФАРМАЦІЇ - 2014»**

**15-16 травня 2014 р.**

**ЗАПОРІЗЬКИЙ ДЕРЖАВНИЙ  
МЕДИЧНИЙ УНІВЕРСИТЕТ**

**м. Запоріжжя**



**Дорогие друзья!**

Искренне поздравляю Вас с началом 74 научно-практической конференции молодых ученых и студентов **«Современные аспекты медицины и фармации - 2014»**, посвященной Дню науки, которая ежегодно проходит в Запорожье – городе, где зарождалось казачество, и закладывалась основа индустриальной мощи страны!

На научно-практическую конференцию, проводимую Советом молодых ученых и Советом СНО Запорожского государственного медицинского университета на протяжении многих лет съезжаются студенты, молодые ученые, врачи, провизоры, представляющие медицинскую науку Украины, России, Беларуси, Армении, Узбекистана, Казахстана, Азербайджана и Киргизии. Наша научно-практическая конференция имеет в молодежной среде второе негласное название «Студенческая Весна» и это не только связано с временем ее проведения -традиционно в мае, но и с постоянным обновлением, буйной энергией, неутомимостью и задором характерным для молодежной науки. Именно молодые исследователи, находясь на передовой Науки, совершают открытия в области базовых медицинских знаний, готовят основу для разработки новых медицинских технологий и создания высокоэффективных лекарственных препаратов. Многие революционные открытия в медицинской науке ведут свои истоки со студенческого научного кружка и первых докладов! Огромная заслуга в воспитании поколения будущих Павловых и Сеченовых, Амосовых и Шалимовых, Кравковых и Палладиных принадлежит руководству ВУЗов и студенческой науки!

Программа настоящей конференции отражает основные направления медицинской и фармацевтической науки – оптимизация диагностики и лечения заболеваний человека, фундаментальные исследования в области молекулярной и клеточной медицины и биологии, разработка новых технологий лабораторной диагностики, целенаправленный синтез новых молекул, разработка новых высокоэффективных и безопасных лекарственных препаратов.

Желаю молодым коллегам успехов в учебе и работе, новых творческих достижений, сил и вдохновения для достижения, поставленной Цели!

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**Міністерство охорони здоров'я України  
Запорізький державний медичний університет**

**74 Всеукраїнська науково-практична конференція  
молодих вчених та студентів з міжнародною  
участю, присвячена Дню науки**

**«СУЧАСНІ АСПЕКТИ  
МЕДИЦИНИ І ФАРМАЦІЇ -2014»**

**Тези доповідей  
15-16 травня 2014 р.**

**м. Запоріжжя**

## ОРГАНІЗАЦІЙНИЙ КОМІТЕТ

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## **SICKLE CELL ANAEMIA IN NIGERIA**

Okolie Isioma Perpetual

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Sickle cell disease is a hereditary blood disorder, characterized by red blood cells that assume an abnormal, rigid and sickle shape. This decreases the cells' flexibility and results in a risk of various life-threatening complications. **GOAL:** To create more awareness on sickle cell anaemia and its distribution in Nigeria. **METHOD – LITERATURE:** having done researches and studied thoroughly this blood disorder using the Wikipedia including reading books like “understanding sickle cell disease” by Mariam Bloom, sickle cell is due to an abnormal haemoglobin (carrying molecule in the red blood cell), it affects all part of the human body but does not affect everyone in the same way it varies from individual to individual. Having inherited two damaged genes it cannot be out grown. **RESULTS :** Three quarters of sickle cell cases occur in Africa. Based on the World Health Organization (WHO) indices, Nigeria accounts for 75 percent of infant sickle cell cases in Africa and almost 80 percent of infant deaths from the diseases in the continent, 200,000 infants are born with sickle cell in Africa every year, with Nigeria accounting for about three-quarter of these births. Sixty percent of the 200,000 will die as infants. The distribution of sickle cell anaemia is high and it is connected with marriages taking place without genetic test, and even those who go for test sometimes pay “deaf ears” to do doctors advices. **CONCLUSION:** The occurrence of this disease in Nigeria is mainly connected with sociological features, superstitious believes and ignorance of genetics.

## **PERINATAL ANATOMY OF UTERUS AND SOME GENITAL ORGANS**

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The aim of research: to find the regulations of normal and pathological perinatal uterine morphogenesis. Study peculiarities of variants of perinatal anatomy of the internal female genital organs and its topography. Material and methods. The study was carried out on 50 human fetuses aged 4-10 months – measuring 250.0-500.0 mm of the parietococcygeal length (PCL). The results of the research and their discussion. The loops of the ileum abut on the anterior surface of the ovary, whereas the external iliac vessels, the obdurate nerve the ureter adjoin the posterior surface. Both uterine ends tightly adjoin one another. The fundus and the body of the uterus are located in the cavity of the large pelvis. The thickness of the uterus at the level of the fundus is 1 mm, the distance between the uterine tubes is 3 mm. The length of the proper ligament of the ovary is 2 mm, the suspensory one is 2 mm. The length of the ovary is 6 mm, the width is 2.5 mm, the thickness is 2 mm. The length of the mesentery is 4 mm, the fimbriae of the infundibula of the uterine tubes are not identified. Normal and pathological forms of the uterus and their characteristic affiliation to a certain period of the fetal development have been detected. At the beginning of the fetal period sulcate and two-humped uterus prevails. Flat and protruding shape of the uterine fundus is found in the mature fetuses. The processes of definite organization of the uterine structure have been found to occur in the postnatal period of ontogenesis. Morphological peculiarities of the uterine structure have been differentiated to determine the age of the fetus. The uterus bicornis or the one close to it by its structure has been found to occur relatively rarely (9% of cases), although comparing the frequency of cases of the given form depending on certain terms it should be noted that in early fetuses uterus bicornis is found in 20% of cases. This fact can be indicative of the fact that uterine shape close to uterus bicornis is the norm at early stages of perinatal period.

## **INFLUENCE OF EXPERIMENTAL DIABETES MELLITUS ON THE EXPRESSION OF TLR2 AND TLR4 ADIPOCYTES IN PERIPANCREATIC ADIPOSE TISSUE**

D.A. Putilin, A.M. Kamyshny, L.K. Chebotareva.

**Introduction.** Increasing incidence of type1 and type 2 diabetes mellitus is a major health problem of the modern world and requires new diagnostic tools to assess early metabolic disorders, particularly insulin resistance. The link between obesity, inflammation and insulin resistance indicates the important secretory role of adipose tissue. Proinflammatory factors (cytokines, adipokines) produced by adipose tissue are related to impaired glucose metabolism. The discovery of the expression of the Toll-like receptors (TLRs) in adipocytes, suggests an important role in innate immunity. In different models of obesity, there has been observed an increase of TLRs expression in the fat tissue, therefore TLRs could be involved in systemic inflammation in this disease, and in the development of insulin resistance. To study the influence of experimental diabetes mellitus on the expression of TLR2 and TLR4 adipocytes in peripancreatic adipose tissue in Wistar line rats. **Materials and methods.** The research was conducted on 36 males of Wistar line rats with weighing 115-135 grams, which were divided into 3 experimental groups of 12 rats: control rats - group 1, rats with 3-week experimental streptozotocin-induced diabetes (ESD1) - group 2, rats with 3-week experimental streptozotocin-nicotinamide-induced diabetes (ESD2) - group 3. For induction ESD1 streptozotocin (STZ) was administered intraperitoneally to the rats at a dose of 50 mg/kg dissolved in 0.5 ml of 0.1 M citrate buffer (pH 4.5) before the point of entry. ESD2 STZ induction was carried out at a dose of 65 mg/kg of the previous (15 min.) by *nicotinamide* administration (intraperitoneally - 230 mg/kg). Structure of population of TLR2<sup>+</sup> and TLR4<sup>+</sup> adipocytes has been studied by the analysis of serial histological sections using the method of indirect immunofluorescence with polyclonal antibodies to TLR2 and TLR4 of rat. Processed histological sections were examined by a computer program Image J. The density of TLR on the surface of adipocytes was determined taking into account the intensity of fluorescence identified immune positive cells and nonspecific fluorescence of the drug. Adjustable cell fluorescence was calculated basing on these indicators. **Results.** The development of ESD1 increased the number of TLR2<sup>+</sup> and TLR4<sup>+</sup> adipocytes in 2.5 times and on 95%, respectively,

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