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The main directions of socio-economic development of New Uzbekistan: problems and solutions

MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATION OF THE REPUBLIC OF UZBEKISTAN

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The main directions of socio-economic development of New Uzbekistan: problems and solutions collection of materials of the international scientific and practical conference on the topic

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Department of Economics and tourism of Jizzakh branch of the National University of Uzbekistan named after Mirzo Ulugbek
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In the collection of materials of the conference, the role and role of Science, Education and production in the era of globalization, the pressing problems of the issues of interaction of these processes, feedback on their solutions were presented by mature specialists of the field.

In addition, research on the scientific and practical topic, carried out in the economics, Exact Sciences, Natural Sciences and socio-humanities during the globalization period, information is presented in the scientific and practical fields, which includes the latest innovative technologies in the fields of production.

It can be argued that this collection is one of the specific intersections of current thoughts and innovative ideas of the world of science. This scientific and practical conference was actively attended by professors and scientific researchers engaged in scientific research in Uzbekistan and foreign countries. In increasing the position of the scientific and practical conference, the professors and teachers of domestic and foreign higher educational institutions made a significant contribution.

Professors and teachers of foreign higher educational institutions who actively participated in the work of the conference made a worthy contribution to the high level of interaction with scientists of our country. The processes of international cooperation with foreign countries and exchange with them in the field of Science in the era of globalization have a positive effect on the development of Higher Education, the fields of Science and production. The materials of this conference are special in that they include a wide range of research, from theoretical developments to practical solutions, demonstrating the diversity of approaches and directions in this area.

In conclusion, it should be noted that this scientific and practical conference will be a very useful collection for everyone who is interested in modern research in the fields of further development of Higher Education, Science, Education and production in the era of globalization. The authors are responsible for the content and quality of the articles and abstracts included in the collection.

HUJAYRANING REJALASHTIRILGAN O`LIMI APOPTOZ



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Annotatsiya: Ushbu tezisda hujayralarning rejalashtirilgan o`limi haqida. Apoptoz – bu keraksiz hujayraning tarkibiy qismlari immun hujayralar tomonidan “yig‘ish” uchun mayda membrana qadoqlariga o‘raladigan tartibli jarayon. Apoptoz rivojlanish jarayonida (ortiqcha) hujayralarni yo‘q qilish, xavf tug‘dirishi mumkin bo‘lgan saraton va virus bilan infeksiyalangan hujayralardan organizmni tozalash va odam tanasida muvozanatni ta’minlash vazifasini bajaradi.

Kalit so`zlar: Apoptoz, virus, saraton, infeksiya, immun, makrofag, oqsil, prokaspaza,

Kirish Apoptoz- bu tartibli programmalashtirilgan hujayra o‘limining bir turi. Apoptoz natijasida hujayra apoptotik tanachalarga bo‘linib ketadi. Apoptotik tanachalar esa tezda (o‘rtacha 90 minut) makrofaglar yoki qo’shni hujayralar tomonidan yallig‘lanishga yol qoymay yutib olinadilar. Ko‘p hujayrali organizmda apoptoz ikki yo'l bilan vujudga kelishi mumkin:

1) Tashqi signallar bo‘ylab. 2) Mitoxondriyaviy signal yo‘l orqali.

Umurtqali organizmlarda mitoxondriyaviy signal yo‘l orqali bo‘lib o‘tadigan programmalashtirilgan hujayra o‘limi ko‘proq uchraydi.

Apoptozning mitoxondriyaviy signal yo‘li hujayra sitoplazmasiga apoptogen oqsillarning chiqishi natijasida bo‘lib o‘tadi. Bu ikkita sababdan kelib chiqishi mumkin: 1. mitoxondriyaning membranalari yorilishi va 2. mitoxondriya membranalarining o‘tkazuvchanligini oshib ketishi natijasida.

Mitoxondriya membranalarining o‘tkazuvchanligi oshishida apoptotik Bcl-2-oqsillar (Bax va Bak oqsillari) katta ahamiyatga ega. Bcl-2-oqsillar mitoxoxondriya membranalariga o‘tirib sitoplazmaga apoptozda ishtirok etadigan oqsillarni – sitoxrom c, prokaspaza va AIF-flavoprotaeinlar - chiqib ketishini ta’minlab beradi.

Sitoplazmada sitoxrom c APAF-1 oqsili bilan apoptosoma degan organellani hosil qilishda ishtirok etadi. APAF-1 va sitoxrom c ga prokaspaza-9 oqsili qo‘shilib yetuk apoptosomani hosil qiladi. Apoptosoma sitoplazmadagi kaspaza -9 oqsillarni topib, ularni prokaspaza-3 oqsillari bilan qoshadi va apoptozda ishtirok etadigan tayyor kaspaza-3 oqsilini hosil qiladi. AIF-flavoproteini kaspaza va prokaspaza oqsillaridan alohida apoptozda ishtirok etadi. Kaspaza-9 hujayra sitoplazmasida kaspazalar kaskadini hosil qiladi. Kaspazalarning asosiy vazifasi hujayrada joylashgan hamma organoidlarni parchalash bilan bo‘g‘liq. Kaspazalar yadro membranalarini, sitoskelet oqsillarini, hujayralar o‘rtasidagi bo‘lgan birikishlarni buzilishida istirok etadi.

Viruslar, bir qancha bakteriya va zamburug’larning hujayra ichi parazitlari hisoblanadi. Hayvon va odam organizmida bularga nisbatan maxsus antitelolar ishlab chiqsa ham, ular sitoplazmaga joylashib olgan parazitlarni oxirigacha yo’q qilolmaydi. Shundan so’ng sitotoksik T-limfositlar o’z ta’sirini o’tkaza boshlaydi.Bular infeksiya qo’zg’atuvchilar bilan zararlangan hujayralarni yo’q qiladi, shu orqali ularning kelgusida ko’payishini to’xtatadi. T-killer sog’ hujayralar orasidan zararlangan hujayralarni tanib oladi va bu nishon hujayrani o’limi haqidagi dasturi ishga solib uni halok qilad. Tabiiy killerlar apoptoz mexanizmi bo’yicha o’sma chaqiruvchi hujayralarni ham yo’q qilishi mumkin.

Apoptoz va virusli infeksiya: virusli gepatit paytida kuzatiladi, jigarda kaunsilman hujayralari bilan birga apoptik hujayra fragmentlari ham uchraydi. Apoptoz yo’li bilan katta bo’lmagan do’zalarda ta’sir ko’rsatuvchi va nekrozni keltirib chiqarishi mumkin bo’lgan zararlovchi omillar bilan zararlangan hujayralar ham yo’q qilinadi. Masalan: yuqori temperature, ionlavchi nurlanish, o’smaga qarshi dori-darmonlar natijasida. Hujayralar apoptik o’limning farqli tomonlari, bu yallig’lanish reaksiyalari bo’lmasligi va jarayonning chegaralanganligidandir. Apoptoz paytida o’layotgan hujayra qo’shni hujayralarni zararlanishi oldini olish shuning uchun apoptozni hujayraviy altruism- qo’shni hujayralar uchun o’z-o’zini halok qilish deyish mumkin.

Xulosa. Bugungi kunda hujayralarning rejalashtirilgan o`limi to`liqligicha o`rganilmagan. Shu bois turli xil ishlar olib borilmoqda. Hujayralarning ortiqcha qoldiqlaridan tozalash uchun apoptoz va makrofaglar ishlatiladi.

Foydalanilgan adabiyotlar ro‘yxati:

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6.12.2024

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