

TABLE OF CONTENTS

ACTIVITIES AND PROSPECTS

- STATE INSTITUTION «NATIONAL RESEARCH CENTER FOR RADIATION MEDICINE OF THE NATIONAL ACADEMY OF MEDICAL SCIENCES OF UKRAINE» – RESEARCH ACTIVITIES AND SCIENTIFIC ADVANCE IN 2020** 10
D. A. Bazyka, V. O. Sushko, A. A. Chumak, P. A. Fedirko, V. V. Talko, L. A. Yanovych

REVIEWS

- SKIN AND SUBCUTANEOUS ADIPOSE TISSUE DAMAGE AFTER RADIATION THERAPY IN BREAST CANCER PATIENTS** 18
D. A. Bazyka, O. O. Litvinenko, S. G. Bugaytsov, G. F. Shakhrai

- LONG-TERM GENETIC AND EPIGENETIC DISORDERS IN PERSONS EXPOSED TO IONIZING RADIATION AND THEIR DESCENDANTS (REVIEW)** 36
O. V. Kucher, S. V. Vydyborets

- BRAIN AND EYE AS POTENTIAL TARGETS FOR IONIZING RADIATION IMPACT: PART II – RADIATION CEREBRO-OPHTHALMIC EFFECTS IN CHILDREN, PERSONS EXPOSED *IN UTERO*, ASTRONAUTS AND INTERVENTIONAL RADIOLOGISTS** 57
K. M. Loganovsky, P. A. Fedirko, D. Marazziti, K. V. Kuts, K. Yu. Antypchuk, I. V. Perchuk, T. F. Babenko, T. K. Loganovska, O. O. Kolosynska, G. Yu. Kreinis, S. V. Masiuk, L. L. Zdorenko, N. A. Zdanevich, N. A. Garkava, R. Yu. Dorichevska, Z. L. Vasilenko, V. I. Kravchenko, N. V. Drosdova, Yu. V. Yefimova, A. V. Malinyak

- THE BRONCHOPULMONARY SYSTEM DAMAGE UNDER THE INFLUENCE OF IONIZING RADIATION EXPOSURE AND RADIONUCLIDES INHALATION IN THE CONDITIONS OF THE CHORNOBYL CATASTROPHE (SUMMARIZING OF 35 YEARS RESEARCH EXPERIENCE)** 98
V. O. Sushko, L. I. Shvaiko, K. D. Bazyka, O. V. Apostolova, O. O. Kolosynska

EPIDEMIOLOGY AND DOSIMETRY

- COMPREHENSIVE RADIATION AND HYGIENIC MONITORING IN POPULATION OF THE RIVNO OBLAST RADIOLOGICALLY CONTAMINATED TERRITORIES** 124
V. V. Vasylenko, M. S. Kuriata, V. V. Morozov, L. O. Lytvynets, M. S. Kramarenko, A. B. Bilonyk, L. P. Mischenko, Z. S. Man, V. Sh. Schwartzman, T. O. Volkerniuk

- SOME ISSUES OF LIFE ACTIVITIES OF POPULATION IN THE CHORNOBYL EXCLUSION ZONE IN UKRAINE** 141
N. V. Gunko, O. M. Ivanova, K. M. Loganovsky, N. V. Korotkova, S. V. Masiuk

- AGING OF THE CHORNOBYL CATASTROPHE SURVIVORS AND PROBLEMS OF THEIR MENTAL HEALTH SURVEY** 162
N. Gunko, K. Loganovsky, V. Buzunov, N. Korotkova

- THYROID SCREENING AND RELIABILITY OF RADIATION THYROID DOSES FOR THE BELARUSIAN *IN UTERO* COHORT** 188
V. Drozdovitch, V. V. Yauseyenko, V. F. Mینenko, I. V. Veyalkin, T. S. Kukhta, R. I. Grakovitch, S. Trofimik, O. N. Polyanskaya, L. Starastsenka, E.K. Cahoon, M. Hatch, M. P. Little, A.V. Brenner, E. Ostroumova, K. Mabuchi, A.V. Rozhko

- RECONSTRUCTION, VERIFICATION AND ANALYSIS OF RESULTS OF WBC MEASUREMENTS DATED 1986 THAT WERE INPUTTED TO ELECTRONIC DATABASE IN 2019-2021** 199
M. S. Kuriata, V. V. Vasylenko, O. M. Ivanova, M. S. Kramarenko, L. O. Lytvynets, V. V. Morozov, L. P. Mischenko, Z. N. Boiko, V. B. Buderatska, M. I. Chepurny, A. G. Kukush

- HEALTH IN THE SYSTEM OF VALUES OF THE POPULATION OF THE SURVEILLANCE ZONES NUCLEAR POWER PLANTSS** 219
V. A. Prylypko, Yu. Yu. Ozerova, I. V. Bondarenko, M. M. Morozova

EXPERIMENTAL RESEARCH

HUMANIZED MODEL OF ISOLATED SUSPENSION CULTIVATION OF HEMATOPOIETIC PROGENITOR CELLS FOR THE INVESTIGATION OF IONIZING RADIATION INFLUENCE <i>IN VIVO</i>	235
D. I. Bilko, I. Z. Russu, R. V. Boiko, N. M. Bilko	
MODIFICATION OF THE TUMOR-INDUCED BYSTANDER EFFECT BY IRRADIATION UNDER COCULTIVATION OF LYMPHOCYTES FROM PATIENTS WITH CHRONIC LYMPHOCYTIC LEUKEMIA AND LYMPHOCYTES FROM HEALTHY DONORS	248
D. Kurinnyi, S. Rushkovsky, O. Demchenko, M. Romanenko, T. Liaschenko, M. Pilinska	
SELECTION AND TESTING OF EXPERIMENTAL MODELS OF NORMAL AND MALIGNANT HUMAN CELLS IN VITRO AND EVALUATION OF THEIR SENSITIVITY RANGE TO THE NEUTRON-CAPTURE AND PHOTON-CAPTURE AGENTS AND PHOTSENSITIZERS	260
O. D. Pochapinskyi, G. Yo. Lavrenchuk, N. P. Atamaniuk, A. V. Chernyshov	

CLINICAL RESEARCH

THE EXPRESSION OF THE MAIN AND ALTERNATIVE TRANSCRIPT (<i>SORL1-Δ2</i>) OF THE <i>SORL1</i> GENE IN CHRONIC LYMPHOCYTIC LEUKEMIA PATIENTS AFFECTED BY THE CHORNOBYL ACCIDENT	273
I. V. Abramenko, N. I. Bilous, A. A. Chumak, I. S. Diagil, Z. V. Martina	
BRAIN AND EYE AS POTENTIAL TARGETS FOR IONIZING RADIATION IMPACT. PART III – FEATURES MORPHOMETRIC RETINAL PARAMETERS, AMPLITUDE AND LATENCY COMPONENTS OF VISUAL EVOKED POTENTIAL IN RADIATION EXPOSED <i>IN UTERO</i>	284
T. F. Babenko, K. M. Loganovsky, T. K. Loganovska, N. V. Medvedovska, O. O. Kolosynska, N. A. Garkava, K. V. Kuts, K. Yu. Antipchuk, I. V. Perchuk, G. Yu. Kreinis, R. Yu. Dorichevska, Yu. V. Yefimova, P. A. Fedirko	
ASSESSMENT OF QUALITATIVE CHANGES IN PERIPHERAL BLOOD CELLS IN CHILDREN – RESIDENTS OF RADIOLOGICALLY CONTAMINATED TERRITORIES IN THE LATE PERIOD AFTER THE ChNPP ACCIDENT	297
V. G. Bebeszko, K. M. Bruslova, L. O. Lyashenko, T. I. Pushkariova, N. M. Tsvetkova, S. G. Galkina, V. V. Vasylenko, Zh. S. Yaroshenko, A. L. Zaitseva, L. O. Gonchar, S. M. Yatsemirskyi	
THYROID DISEASE IN THE LATE OBSERVATION PERIOD UPON CHEMO- AND RADIOTHERAPY IN CHILDREN-SURVIVORS OF ACUTE LYMPHOBLASTIC LEUKEMIA	309
V. G. Bebeszko, K. M. Bruslova, L. O. Lyashenko, N. M. Tsvietkova, S. G. Galkina, Zh. S. Yaroshenko, L. O. Gonchar, O. Y. Boyarska, V. F. Kuzmenko, I. V. Trykhlil, N. V. Kavardakova	
RELATIVE TELOMERE LENGTH OF PERIPHERAL BLOOD LYMPHOCYTES AND STRUCTURAL AND FUNCTIONAL STATE OF THE LEFT VENTRICLE MYOCARDIUM IN CLEAN-UP WORKERS OF THE CHORNOBYL ACCIDENT WHO SUFFERED FROM STENOTIC CORONARY ATHEROSCLEROSIS	319
D. O. Belyi, I. Ilyenko, O. Nastina, G. Sydorenko, Z. Gabulavichene, N. Kursina, O. Bazyka, V. Bilaya, O. Kovaliov, D. Bazyka	
COMORBID INTERNAL DISEASES IN MILITARY SERVANTS WHO HAVE SENSED THE EXPOSURE OF EXTREME FACTORS OF MILITARY SERVICE	339
A. A. Voronko, O. V. Seliuk, O. V. Bohomolets	
CHARACTERISTICS OF CYCLIN D1-MEDIATED REGULATION OF CELL CYCLE OF PERIPHERAL BLOOD LIMPLOCYTES OF CHORNOBYL CLEAN-UP WORKERS AND PERSONS WITH MALIGNANT NEOPLASMS OF THE ORAL CAVITY, OROPHARYNX AND LARYNGOPHARYNX	357
N. A. Golyarnik, I. N. Ilienکو, L. M. Zvorych, M. O. Vorobyov, D. A. Bazyka	
PSYCHOPHYSIOLOGICAL FEATURES OF RADIATION RISK PERCEPTION	371
M. V. Gresko, I. V. Perchuk	
CYTOGENETIC INDICATORS OF ACUTE RADIATION SICKNESS (THE CHORNOBYL EXPERIENCE)	398
E. A. Djomina, V. V. Talko	
CLINICAL-METABOLIC AND HORMONAL RELATIONSHIPS BETWEEN PARATHYROID DISEASE AND OTHER NON-CANCEROUS ENDOCRINE DISORDERS IN THE CHORNOBYL NPP ACCIDENT SURVIVORS	410
O. V. Kaminskyi, O. V. Kopylova, D. E. Afanasyev, I. M. Muraviova, I. G. Chikalova, N. S. Dombrovska	
DENTAL CARIES INTENSITY IN CHILDREN WITH DISTURBANCES IN TOOTH FORMATION, SURVIVED AFTER THE CHORNOBYL NPP ACCIDENT	426
S. F. Liubarets	

SUBCLINICAL INFLAMMATION IN NON-ALCOHOLIC FATTY LIVER DISEASE AT THE REMOTE PERIOD AFTER THE CHORNOBYL ACCIDENT	437
O. V. Nosach, E. O. Sarkissova, S. M. Alyokhina, O. Ya. Pleskach, O. M. Litvinets, L. M. Ovsyannikova, A. A. Chumak	
ROLE OF GENETIC PREDISPOSITION, GENE POLYMORPHISM OF GLUTATHIONE-S-TRANSFERASE (GSTT1, GSTM1, GSTP1) AND SOME ADVERSE FACTORS IN DEVELOPMENT OF BRONCHIAL ASTHMA IN CHILDREN – RESIDENTS OF RADIOACTIVELY CONTAMINATED AREAS	449
Ye. I. Stepanova, I. Ye. Kolpakov, V. Yu. Vdovenko, V. M. Zigalo, S. M. Al'okhina, V. H. Kondrashova, O. S. Leonovych	
ANXIOUSNESS AND QUALITY OF SLEEP IN CHILDREN WHO WERE IN QUARANTINE DURING THE COVID-19 PANDEMIC	464
E. I. Stepanova, V. A. Poznysh, N. M. Gudz, V. Yu. Vdovenko	
CASE RECORDS	
INFLUENCE OF RADIOACTIVE BACKGROUND ON SEXUAL FUNCTION IN MEN FROM DIFFERENT REGIONS OF UKRAINE	479
I. I. Gorpichenko, Yu. M. Gurzhenko, V. V. Spyrndonenko	
CARDIOTOXICITY RISK PREDICTION IN BREAST CANCER PATIENTS	498
S. M. Kozhukhov, N. V. Dovganych, I. I. Smolanka, O. F. Lygyrda, O. Ye. Bazyka, S. A. Lyalkin, O. M. Ivankova, O. A. Yarinkina, N. V. Tkhor	
MULTIMODAL LOGIT MODEL FOR PREDICTING THE EFFICIENCY OF MYOCARDIAL REVASCULARIZATION BY THE METHOD OF CORONARY ARTERY BYPASS GRAFTING IN PATIENTS WITH CORONARY HEART DISEASE	513
V. V. Kundina, T. M. Babkina	
NON-INVASIVE CORONARY ARTERIES ATHEROSCLEROSIS CT-VISUALIZATION: UP-TO-DATE STANDARDS AND OWN CLINICAL EXPERIENCE STUDY	526
V. V. Lazoryshynets, S. V. Fedkiv, S. V. Potashev	
THE ROLE OF THE APPARENT DIFFUSION COEFFICIENT OF THE BIPARAMETRIC MRI AS AN IMAGING MARKER OF PROSTATE CANCER	541
Yu. O. Mytsyk, A. Ts. Borzhiyevskyy, Yu. S. Kobilnyk, I. Yu. Dutka, A. V. Shulyak, D. Z. Vorobets, I. V. Dats, O. A. Borzhiyevskyy, Kh. Yu. Kozlovskaya, V. F. Vitkovskyy, P. O. Illiuk	
RADIATION AND CHEMORADIATION THERAPY FOR I STAGE INTERMEDIATE AND HIGH-INTERMEDIATE ENDOMETRIAL CANCER – DESCRIPTIVE ANALYSIS	554
V. S. Svintsitskiy, N. P. Tsip, S. V. Nespryadko, O. I. Bubl'ieva, O. M. Movchan, M. O. Polukhina	
ANALGESIC EFFECT OF VARIOUS RADIOPHARMACEUTICALS IN THE COMPLEX TREATMENT OF METASTATIC BONE DISEASE	562
O. I. Solodyannikova, V. V. Danilenko, G. G. Sukach	
DEVIATION BETWEEN THE PLANNED DOSE AND THE <i>IN VIVO</i> DOSIMETRY RESULTS DURING POSTOPERATIVE IRRADIATION IN PATIENTS WITH UTERINE CANCER DEPENDING ON ANTHROPOMETRIC DATA	573
O. M. Sukhina, A. S. Simbirova, V. S. Sukhin	
JUBILEE	
PROFESSOR OLEKSANDR O. LYTVYNNENKO IS 65 YEARS OLD	588
PROFESSOR ANATOLII A. CHUMAK IS 75 YEARS OLD	596
IN MEMORIAM	
IN HALLOWED MEMORY OF MYKOLA I. OMELIANETS	602
INFORMATION FOR AUTHORS	615