

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 2017	10
D. Bazyka, V. Sushko, A. Chumak, P. Fedirko, V. Talko, L. Yanovych	

REVIEWS

REFORMING OF PUBLIC HEALTH SYSTEM: THE ROLE AND PLACE OF HEALTH CARE FACILITIES OF THE TERTIARY LEVEL IN RADIATION EMERGENCIES IN MARTIAL LAW	21
--	-----------

D. A. Bazyka, K. M. Loganovsky, O. O. Petrychenko, V. B. Berkovskyy

INDIVIDUAL RADIOLOGICAL MONITORING AFTER MAJOR RELEASES OF RADIONUCLIDES TO THE ENVIRONMENT	37
--	-----------

V. Berkovski, G. Ratia, Yu. Bonchuk

THE MODERN STATE OF PROBLEM OF PROVIDING RADIO PROTECTION OF UKRAINE'S POPULATION FROM NATURAL RELEASE SOURCES (review of literature)	49
--	-----------

A. V. Kutsak

THE REQUIREMENTS FOR INDIVIDUAL MONITORING OF OCCUPATIONAL EXPOSURE: INTERNATIONAL EXPERIENCE AND UKRAINIAN REALITIES	61
--	-----------

V. V. Chumak, N. P. Deniachenko, V. M. Voloskyi, O. V. Bakhanova, O. Ye. Chumak, T. V. Treskunova, O. S. Zimina

EPIDEMIOLOGY AND DOSIMETRY

INTEGRAL ESTIMATION OF QUALITY OF THE DNIPRO RIVER WATER INCLUDING RADIATION INDEXES AT PLACES OF WATER INTAKE AND POTABLE WATER SUPPLY STATIONS	82
---	-----------

M. Yu. Antomonov, O. V. Zorina

EPIDEMIOLOGICAL STUDIES OF CEREBROVASCULAR DISEASE OF THE POPULATION EVACUATED FROM THE 30-KM ZONE OF THE ChNPP AT THE AGE OF 18–60 YEARS. ANALYSIS OF THE INFLUENCE OF INTERNAL IONIZING RADIATION ON THE THYROID GLAND ¹³¹I	96
---	-----------

V. O. Buzunov, O. A. Kapustynska

MORBIDITY OF THE CIRCULATORY SYSTEM DISEASES OF RESIDENTS FROM RADIOACTIVELY CONTAMINATED AREAS. ANALYSIS OF THE EFFECT OF CHRONIC LOW-DOSE IONIZING RADIATION	107
---	------------

V. O. Buzunov, K. Y. Prykaschykova, Zh. S. Yaroshenko, G. V. Kostiuk, I. G. Gubina

RESULTS OF WBC MEASUREMENTS WERE MADE AT RADIOACTIVELY CONTAMINATED TERRITORIES OF UKRAINE IN 1986–2014 (REVISION AND ANALYSIS)	120
--	------------

V. V. Vasylenko, S. V. Masiuk, O. M. Ivanova, V. O. Pikta, Z. N. Boiko, M. I. Chepurny, V. B. Buderatska, G. M. Zadorozhna, L. O. Lytvynets, M. S. Kramarenko, G. V. Fedosenko, A. G. Kukush, M. S. Kuriata, N. S. Zhadan, T. F. Babenko

RESULTS OF COMPREHENSIVE RADIOLOGICAL & HYGIENIC MONITORING IN SOME SETTLEMENTS OF RADIOLOGICALLY CONTAMINATED AREAS IN RIVNE REGION IN 2017	139
---	------------

V. V. Vasylenko, S. Yu. Nechaev, M. Ya. Tsigankov, V. O. Pikta, G. M. Zadorozhna, M. S. Kuriata, L. O. Lytvynets, L. P. Mischenko, T. F. Babenko

VARIABILITY OF POPULATION GENDER AND AGE COMPOSITION IN AREAS WITH THE MOST INTENSIVE RADIOLOGICAL CONTAMINATION IN UKRAINE	153
--	------------

N. V. Gunko, N. V. Korotkova

METHODOLOGY OF RECONSTRUCTION OF INDIVIDUALIZED EXPOSURE DOSES FOR PERSONS RESIDING AT RADIOACTIVELY CONTAMINATED TERRITORIES OF UKRAINE	164
---	------------

O. M. Ivanova, L. M. Kovgan, S. V. Masiuk

MORBIDITY RATES IN THE NPP SURVEILLANCE ZONE AND RADIOLOGICALLY CONTAMINATED AREAS	188
---	------------

V. A. Prylypko, M. M. Morozova, O. O. Petrychenko, Yu. Yu. Ozerova, O. V. Kotsubinskij

RADIATION RISKS OF THYROID CANCER IN CHORNOBYL CLEAN-UP WORKERS USING THE ALTERNATIVE ESTIMATES OF DOSES OF EXTERNAL EXPOSURE	200
A. Ye. Prysyzhnyuk, N. K. Trotsyuk, N. A. Gudzenko, V. V. Chumak, O. V. Bakhanova, M. M. Fuzik, Yu. M. Belyaev, Z. P. Fedorenko, Y. L. Gorokh, A. Yu. Romanenko, D. A. Bazyka, O. M. Khukhryanska	
CHARACTERISTICS AND PROGNOSIS OF THE INTERNAL EXPOSURE DOSES OF THE UKRAINIAN POLISSYA RURAL POPULATION IN THE REMOTE PERIOD AFTER THE ACCIDENT AT THE CHORNOBYL NUCLEAR POWER PLANT (MONITORING STUDY)	216
H. M. Chobotko, L. A. Raichuk, V. P. Landin	
EXPERIMENTAL RESEARCH	
MATHEMATICAL ANALYSIS OF FUNCTIONAL PROPERTIES OF MICE BONE MARROW IN THE INITIAL PHASE OF ACUTE FRACTIONATED IRRADIATION	229
R. V. Boiko, D. I. Bilko, I. Z. Russu, N. M. Bilko	
THE IMPACT OF ASTAXANTHIN ON THE LEVEL OF DNA METHYLATION IN IRRADIATED <i>IN VITRO</i> HUMAN LYMPHOCYTES	235
D. A. Kurinnyi, O. M. Demchenko, M. G. Romanenko, S. R. Rushkovsky	
CLINICAL RESEARCH	
DISEASES OF CIRCULATORY SYSTEM AND COMORBID TYPE II DIABETES MELLITUS IN THE CHORNOBYL ACCIDENT CONSEQUENCES CLEAN-UP WORKERS	246
O. D. Bazyka, D. O. Bilyi	
EFFECT OF SOME UNFAVORABLE FACTORS OF ENVIRONMENT ON THE SURVIVAL OF CHILDREN WITH ACUTE LEUKEMIA IN A LONG-TERM PERIOD AFTER ACCIDENT ON THE CHORNOBYL NPP	254
V. G. Bebesheko, K. M. Bruslova, N. M. Tsvietkova, L. O. Lyashenko, T. I. Pushkareva, L. O. Honchar, A. S. Sergeeva, M. Yatsemyrskii, Y. M. Samson, I. V. Trihlib, O. I. Makovey	
GENDER DISPARITIES OF CIRCULATORY DISEASE PROGRESS IN THE CHORNOBYL ACCIDENT CLEAN-UP WORKERS AND PHOSPHODIESTERASE 4D GENE rs966221 POLYMORPHISM	263
D. O. Bilyi, O. M. Nastina, G. V. Sydorenko, N. I. Bilous, N. V. Kursina, G. V. Pleskach, O. D. Bazyka, O. M. Makarevych, O. S. Kovaliov, A. A. Chumak, I. V. Abramenko	
THE SPECTRUM OF TP53, SF3B1, AND NOTCH1 MUTATIONS IN CHRONIC LYMPHOCYTIC LEUKEMIA PATIENTS EXPOSED TO IONIZING RADIATION DUE TO THE CHORNOBYL NPP ACCIDENT	283
N. I. Bilous, I. V. Abramenko, A. A. Chumak, I. S. Dyagil, Z. V. Martina, V. Saenko, D. A. Bazyka	
MORPHOLOGICAL AND FUNCTIONAL MYOCARDIAL ABNORMALITIES IN THE CHORNOBYL NPP ACCIDENT CLEAN-UP WORKERS OF «IODINE» PERIOD HAVING GOT TYPE 2 DIABETES MELLITUS	302
N. S. Dombrovska, O. M. Nastina, V. I. Voloshko, O. Ya. Pleskach	
EXPRESSION OF BIOLOGICAL MARKERS INDUCED BY IONIZING RADIATION AT THE LATE PERIOD AFTER EXPOSURE IN A WIDE RANGE OF DOSES	331
I. M. Iliencko, N. A. Golyarnik, O. V. Lyaskivska, O. A. Belayev, D. A. Bazyka	
THE ROLE OF RADIOACTIVE METHODS IN THE DIAGNOSTIC TYPE OF HYDRONEPHROSIS IN CLEAN-UP WORKERS OF CHORNOBYL ACCIDENT	351
P. O. Korol, M. M. Tkachenko	
ELECTROLYTE CONTENT IN SALIVA OF CHILDREN WITH DEVIATION IN VEGETATIVE STATUS RESIDING AT RADIOACTIVELY CONTAMINATED TERRITORIES OF UKRAINE AFTER APPLICATION OF INTERMITTENT NORMOBARIC HYPOXIA	359
L. M. Lisukha, Ye. I. Stepanova, I. Ye. Kolpakov, A. Ye. Podrushnyak	
NEUROPSYCHOBIOLOGICAL MECHANISMS OF AFFECTIVE AND COGNITIVE DISORDERS IN THE CHORNOBYL CLEAN-UP WORKERS TAKING INTO ACCOUNT THE SPECIFIC GENE POLYMORPHISMS	373
K. N. Loganovsky, M. O. Bomko, I. V. Abramenko, K. V. Kuts, N. I. Belous, S. V. Masiuk, M. V. Gresko, T. K. Loganovska, K. Yu. Antypchuk, I. V. Perchuk, G. Yu. Kreinis, S. A. Chumak	
CLINICAL, HEMATOLOGICAL CHARACTERIZATION AND POLYMORPHISM OF ABO AND Rh BLOOD GROUP SYSTEMS IN PLASMA CELL MYELOMA PATIENTS	410
T. F. Liubarets, Zh. M. Minchenko, O. O. Dmytrenko, V. I. Khomenko, L. S. Reznikova, T. Yu. Shlyahychenko, A. O. Tovstogan, Yu. O. Silayev	

COMPARATIVE CHARACTERISTIC OF «ALCOHOL DEPRESSION» IN PERSONS WHO PARTICIPATED IN COMBAT OPERATIONS (COMBATANS) AND AFFECTED BY RADIATION CATASTROPHE	423
O. K. Napryeyenko, K. M. Loganovsky, N. Yu. Napryeyenko, T. K. Loganovskaja, M. V. Gresko, N. A. Zdanevich	
VITAMIN D CONTENT IN POPULATION OF RADIOLOGICALLY CONTAMINATED AREAS IN CHERNIVTSI OBLAST (pilot project)	442
O. V. Kaminskyi, V. I. Pankiv, I. V. Pankiv, D. E. Afanasyev	
THE EFFECT OF APPLICATION OF ANTIOXIDANT THERAPY IN THE TREATMENT OF NON-ALKOHOLIC STEATOHEPATATIS IN CHORNOBYL NPP ACCIDENT SUFFERERS IN THE REMOTE PERIOD AFTER IRRADIATION	452
E. A. Sarkisova, A. A. Chumak, L. M. Ovsyannikova, L. M. Alekhina, O. V. Nosach, E. O. Gasanova, T. O. Shyiko	
FEATURES OF NITRIC OXIDE METABOLISM AND RISK OF DEVELOPING ENDOTHELIAL DYSFUNCTION IN CHILDREN WITH e-NOS GENE 4a/4b POLYMORPHISM UNDER LONG-TERM ENTERING ¹³⁷Cs TO BODY	462
Ye. I. Stepanova, I. Ye. Kolpakov, V. M. Zyhala, V. Yu. Vdovenko, V. V. Vasylenko, O. M. Leonovych	
PROBLEMS OF MEDICAL EXPERTISE FOR DISEASES THAT BRING TO DISABILITY AND DEATH AS A RESULT OF RADIATION EXPOSURE INFLUENCE IN CONDITIONS OF THE CHERNOBYL CATASTROPHE IN REMOTE POSTACCIDENTAL PERIOD	471
V. O. Sushko, O. O. Kolosynska, O. M. Tatarenko, G. A. Nezgovorova, Zh. M. Berestjana, S. I. Ustinov, D. D. Hapeyenko	
MORPHOMETRIC PARAMETERS OF RETINAL MACULAR ZONE IN RECONVALESCENTS OF ACUTE RADIATION SICKNESS (IN REMOTE PERIOD)	481
P. Fedirko, T. Babenko, O. Kolosynska, R. Dorichevska, N. Garkava, L. Grek, V. Vasylenko, S. Masiuk	
CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN THE CLEAN-UP WORKERS OF CHORNOBYL NPP ACCIDENT IN A REMOTE POST-ACCIDENT PERIOD (CLINICAL STUDY)	490
L. I. Shvaiko, K.D. Bazyka, V. O. Sushko, S. V. Masyuk	
DEVELOPMENT OF RADIATION-INDUCED BYSTANDER EFFECT IN THE SOMATIC CELLS OF PERSONS FROM DIFFERENT AGE GROUPS	499
O. V. Shemetun, O. O. Talan, O. M. Demchenko, M. A. Pilinska	
EVALUATION OF BURDENSOME SYMPTOMS IN PATIENTS WITH RADIATION-ASSOCIATED AND SPONTANEOUS MYELOPROLIFERATIVE NEOPLASMS WITH THE USE OF OPTIMIZED SELF-ASSESSMENT MPN-SAF TSS	510
O. O. Shumeiko, L. O. Poluben, B. T. Klimuk, L. A. Rybchenko, L. V. Neumerzhitskaya, R. M. Verbilenko, S. V. Frolov, S. V. Klymenko	
CASE RECORD	
CASE OF DEVELOPMENT OF NON-HODGKIN'S MALIGNANT LYMPHOMA ON THE BACKGROUND OF CHRONIC MYELOID LEUKEMIA IN A PATIENT WHO SUFFERED OF THE CHORNOBYL ACCIDENT	517
I. S. Dyagil, V. V. Sholoyko, Yu. O. Silayev, Z. V. Martina, I. V. Dmytrenko, A. O. Tovstogan, V. G. Fedorenko, T. Yu. Shlyakhtychenko, Zh. M. Minchenko	
ANALYTICS	
STATE AND PROSPECTS OF INNOVATION ACTIVITY IN STATE INSTITUTION «ATIONAL RESEARCH CENTER FOR RADIATION MEDICINE OF NAMS OF UKRAINE»	524
L. Lyashenko, L.Yanovych, N. Chuprovskaja, A. Saienko	
JUBILEE	
The staff of SI «National Research Center for Radiation Medicine of NAMS of Ukraine» sincerely congratulates a jubilee Romanenko Anatolii Yukhymovych!	530
INFORMATION ABOUT AUTHORS	542
INSTRUCTIONS FOR AUTHORS	555