

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 2021** 10
D. A. Bazyka, V. O. Sushko, A. A. Chumak, P. A. Fedirko, V. V. Talko, L. A. Yanovych

REVIEWS

- PROBLEMATIC ASPECTS, COMPLICATIONS, MISCONCEPTIONS AND DEBATABLE ISSUES OF IODINE PROPHYLAXIS IN RADIATION EVENTS (REVIEW)** 25
D. E. Afanasiev, O. V. Kaminskyi, T. K. Loganovska, O. V. Kopylova, I. G. Chikalova, I. M. Muraviova, N. S. Dombrovska
- RADIATION-INDUCED DAMAGE TO THE CARDIOVASCULAR SYSTEM AFTER RADIATION THERAPY IN WOMEN WITH BREAST CANCER** 60
D. A. Bazyka, O. O. Lytvynenko, V. O. Demianov
- CLASSIFICATION OF MEDICAL EQUIPMENT FOR ANTI-RADIATION PROTECTION** 84
D. A. Bazyka, O. O. Lytvynenko, O. O. Lytvynenko
- EFFECT OF RADIATION ON AGING PROCESSES AND TELOMERE LENGTH** 107
K. Dondoladze, M. Nikolaishvili, T. Museliani, G. Jikia
- IONIZING RADIATION AND CYTOKINES: THE ROLE IN THE PATHOGENESIS OF PLASMA CELL MYELOMA (LITERATURE REVIEW)** 120
T. F. Liubarets
- RADIONUCLIDE THERAPY FOR BONE LESIONS IN CASTRATION-RESISTANT PROSTATE CANCER (STATE-OF-THE-ART LITERATURE REVIEW)** 131
O. I. Solodyannikova, A. F. Shypko, V. V. Danilenko, G. G. Sukach

EPIDEMIOLOGY AND DOSIMETRY

- LATE ONCOLOGICAL AFTEREFFECTS OF RADIATION EXPOSURE CAUSED BY THE CHORNOBYL ACCIDENT** 138
D. A. Bazyka, A. Ye. Prysazhnyuk, N. A. Gudzenko, M. M. Fuzik, N. K. Trotsyuk, N. G. Babkina, O. M. Khukhrianska, S. A. Danevych
- COMPLEX RADIATION AND HYGIENIC MONITORING OF POPULATION ON RADIOLOGICALLY CONTAMINATED TERRITORIES OF ZHYTOMYR OBLAST IN 2021** 150
V. V. Vasylenko, M. S. Kuriata, V. V. Morozov, L. O. Lytvynets, M. S. Kramarenko, L. P. Mischenko, A. B. Bilonyk, Z. S. Man, V. Sh. Schwartzman
- RADIOACTIVELY CONTAMINATED TERRITORIES OF CHERNIHIVSKA OBLAST OF UKRAINE: THE RADIATION-ECOLOGICAL AND MEDICAL-DEMOGRAPHIC PAST AND PRESENT** 167
N. V. Gunko, O. M. Ivanova, N. V. Korotkova, V. B. Buderatska, Z. N. Boiko, S. V. Masiuk, A. A. Melekestseva
- PRE-WAR STATE OF INFORMATION PROVISION OF THE POPULATION OF SURVEILLANCE ZONES ON THE SAFETY OF NUCLEAR ENERGY FACILITIES** 189
V. A. Prylypko, Yu. Yu. Ozerova, M. M. Morozova, I. V. Bondarenko

EXPERIMENTAL RESEARCH

- ANALYSIS OF THE INFLUENCE OF PROLONGED IRRADIATION ON HEMATOPOIETIC PROGENITOR CELLS IN GEL DIFFUSION CHAMBERS USING MATHEMATICAL MODELLING** 203
D. I. Bilko, R. V. Boiko, I. Z. Russu, I. S. Dyagil, N. M. Bilko
- RELEVANT BIOCHEMICAL INDICES OF BLOOD RADIOSENSITIVITY IN GYNECOLOGICAL CANCER PATIENTS** 216
E. A. Domina, L. I. Makovetska, M. O. Druzhyna
- EFFICIENCY OF PHOTON CAPTURE BEAM TECHNOLOGY AND PHOTODYNAMIC IMPACT ON MALIGNANT AND NORMAL HUMAN CELLS *IN VITRO*** 234
V. V. Talko, G. Y. Lavrenchuk, O. D. Pochapinskyi, N. P. Atamanuk, A. V. Chernyshov
- CYTOGENETIC STUDY OF MANIFESTATIONS OF THE UNIVERSAL PHENOMENON OF THE BYSTANDER RESPONSE** 249
O. V. Shemetun, O. O. Talan, O. B. Dibska, M. M. Yereameyva, M. A. Pilinska

CLINICAL RESEARCH

- EFFECT OF IRON ON BONE TISSUE METABOLISM AND THYROID FUNCTION IN CHILDREN LIVING ON RADIOLOGICALLY CONTAMINATED TERRITORIES SINCE THE ChNPP ACCIDENT** 264
D. A. Bazyka, K. M. Bruslova, L. O. Lyashenko, T. I. Pushkariova, N. M. Tsvetkova, A. L. Zaitseva, L. O. Gonchar, S. M. Yatsemirskyi, O. L. Lytvynets, I. V. Tryhlib, V. G. Boyarskyi, O. M. Ivanova, S. G. Horbachiov
- FACTORS AFFECTING MECHANISMS OF INCREASED BONE DENSITY FORMATION IN CHILDREN LIVING ON RADIOLOGICALLY CONTAMINATED TERRITORIES AFTER THE ChNPP ACCIDENT** 276
D. A. Bazyka, K. M. Bruslova, L. O. Lyashenko, N. M. Tsvetkova, T. I. Pushkariova, S. G. Galkina, V. G. Kondrashova, Zh. S. Yaroshenko, L. O. Gonchar, V. G. Boyarskyi, T. O. Charnysh, I. V. Tryhlib, L. O. Tsvet
- ANALYSIS OF CLINICAL AND FUNCTIONAL INDICES OF CARDIOVASCULAR SYSTEM IN POST-COVID-19 EMERGENCY WORKERS OF THE CHORNOBYL ACCIDENT** 290
D. Belyi, O. Nastina, G. Sydorenko, N. Kursina, O. Bazyka, O. Kovaliov, D. Bazyka
- STEREOTYPED CASES IN UKRAINIAN COHORT OF CHRONIC LYMPHOCYTIC LEUKEMIA PATIENTS DEPENDING ON THE IONIZING RADIATION EXPOSURE** 307
N. I. Bilous, I. V. Abramenko, A. A. Chumak, I. S. Dyagil, Z. V. Martina
- STATUS OF THE CELLULAR IMMUNITY IN CLEAN-UP WORKERS OF THE CHORNOBYL ACCIDENT AND PATIENTS WITH CANCER OF THE MOUTH CAVITY, ORAL AND LARYNGEAL PART OF THE PHARYNX** 324
L. M. Zvarych, D. A. Bazyka, I. M. Iliencko, N. A. Golyarnik, O. V. Liaskivska, O. A. Belayev, V. V. Panchenko, M. O. Vorobyov
- CATALASE C262T GENE POLYMORPHISM AND CHANGES IN VENTILATION LUNG CAPACITY IN CHILDREN-RESIDENTS OF RADIOACTIVELY CONTAMINATED TERRITORIES** 341
I. Ye. Kolpakov, V. Yu. Vdovenko, V. M. Zyhala, V. H. Kondrashova, O. S. Leonovych
- ASSESSMENT OF DISTRESS DYNAMICS AND QUALITY OF LIFE OF CANCER PATIENTS AT THE STAGE OF RADIATION THERAPY AND POSSIBILITIES OF THEIR CORRECTION** 353
M. V. Krasnoselskyi, O. O. Kyrlyova, T. V. Rublova, A. V. Svyarenko, S. V. Artiukh
- ASSESSMENT OF THE SEVERITY OF GINGIVITIS IN CHILDREN WITH DISORDERS OF TEETH FORMATION SUFFERED AFTER THE CHORNOBYL NPP ACCIDENT** 363
S. F. Liubarets
- COMPLEX ANALYSIS OF THE ROLE OF CYTOKINE GENE POLYMORPHISMS AS PROGNOSTIC FACTOR OF THE RISK OF PLASMA CELL MYELOMA IN PERSONS SUFFERED AFTER THE CHORNOBYL NPP ACCIDENT** 374
Zh. M. Minchenko, O. O. Dmytrenko, T. F. Liubarets, Yu. O. Silaev, D. O. Stroy, V. V. Balan, T. Yu. Shlyakhtychenko
- IDENTIFICATION OF MONOAMINOXIDASE-A GENE PROMOTER POLYMORPHISM (*MAOA-UVNTR*) AND THEIR RELATIONSHIP WITH AGGRESSIVE BEHAVIOR IN UKRAINIAN CHILDREN** 385
V. A. Poznysh, V. Yu. Vdovenko, I. E. Kolpakov, I. V. Abramenko, A. A. Chumak

MEDICAL EXPERTISE FOR ESTABLISH CAUSATION OF DISEASE, LEADING TO LOSS OF HEALTH, DISABILITY AND DEATH WITH THE ACTION OF IONIZING RADIATION AND OTHER HARMFUL FACTORS OF THE CHORNOBYL ACCIDENT IN THE REMOTE POST-ACCIDENTAL PERIOD (2013–2022)	402
V. O. Sushko, O. O. Kolosynska, Zh. M. Berestjana, K. D. Bazyka	
BRAIN AND EYE AS POTENTIAL TARGETS FOR IONIZING RADIATION IMPACT. PART IV – FETAL RADIATION-INDUCED BINOCULAR VISION DISORDERS: A PILOT STUDY. IMMUNOHISTOCHEMICAL CHANGES OF NON-IRRADIATED EYEBALL MUSCLES AFFECTED BY STRABISMUS. EVIDENCE OF A POSSIBLE MECHANISM OF THE STRABISMUS DEVELOPMENT IN PERSONS EXPOSED TO FETAL RADIATION	412
P. Fedirko, M. Pilmane, T. F. Babenko, V. Konopeccka	
CLINICAL PRACTICE	
RETINA VESSELS CHANGES IN CHORNOBYL NUCLEAR POWER PLANT EMPLOYEES WHO EXPERIENCED LONG-TERM ABNORMAL RADIATION EXPOSURE AT THE WORKPLACE AS A RESULT OF THE OCCUPATION OF CHORNOBYL NUCLEAR POWER PLANT IN 2022	423
D. A. Bazyka, V. O. Sushko, P. A. Fedirko, T. F. Babenko, V. V. Vasylenko, O. O. Kolosynska, M. S. Kuryata, V. V. Morozov, L. O. Lytvynets, R. Yu. Dorichevska, M. S. Kramarenko, Y. V. Yefimova, N. A. Garkava	
DOSE RELATIONSHIP DURING RADIOABLATION OF THYROID RESIDUAL IN PATIENTS WITH THYROID DIFFERENTIATED CANCER	431
D. O. Dzhuzha	
CARDIOTOXICITY IN BREAST CANCER PATIENTS: RELATIONSHIP OF HS-TROPONIN T CHANGES AND HEART FUNCTION IN CANCER TREATMENT	440
N. V. Dovganych, S. M. Kozhukhov, I. I. Smolanka, O. F. Lygyrda, O. Ye. Bazyka, S. A. Lyalkin, O. M. Ivankova, O. A. Yarynkina, N. V. Tkhor	
CONTEMPORARY APPROACHES TO PROGNOSTICATION AND MANAGEMENT OF PELVIC RADIATION INJURIES IN GYNECOLOGICAL CANCER PATIENTS	455
V. S. Ivankova, E. A. Domina, T. V. Khrulenko, L. M. Baranovska, O. A. Glavin	
MORPHOLOGICAL AND IMMUNOHISTOCHEMICAL FEATURES OF PLACENTAL DAMAGE DUE TO THE INCORPORATION OF ¹³⁷Cs	474
A. A. Zhyvetska-Denysova, I. I. Vorobiova, N. Ya. Skrypchenko, T. D. Zadorozhna, V. B. Tkachenko, Yu. M. Bondarenko, S. K. Stryzhak	
HETEROTAXY SYNDROME IN COVID-19 PATIENT WITH PULMONARY EMBOLISM AND AORTIC ANEURYSM: A RARE ACCIDENTAL COMBINATION (RADIOLOGICAL ASSESSMENT)	495
U. Pidvalna, A. Mangov, M. Mirchuk	
JUBILEE	
PROFESOR VOLODYMYR O. BUZUNOV CELEBRATES HIS 85th ANNIVERSARY	504
IN MEMORIAM	
IN HALLOWED MEMORY OF PROFESSOR KOSTYANTYN M. LOGANOVSKYI	508
INFORMATION FOR AUTHORS	521