

THE 70 YEAR ANNIVERSARY OF THE ROCZNIKI PAŃSTWOWEGO ZAKŁADU HIGIENY / ANNALS OF THE NATIONAL INSTITUTE OF HYGIENE

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ABSTRACT

The article presents the genesis of the foundation and development of ‘Roczniki Państwowego Zakładu Higieny’ [Annals of the National Institute of Hygiene] since 1950 to 2019, scientific peer-reviewed journal devoted to research studies on the food and water safety, nutrition, environmental hygiene, toxicology and health risk assessment, and public health. It also shows the difficulties that this journal had initially to struggle with, and its achievements in recent years, aiming to improve its international position. The article discusses the stages of journal’s development and activity in terms of scientific, editorial and publishing.

Key words: *scientific journal, Roczniki Państwowego Zakładu Higieny, Annals of the National Institute of Hygiene, Poland, open access journal, National Institute of Hygiene (PZH)*

STRESZCZENIE

W artykule przedstawiono genezę powstania i rozwój „Roczników Państwowego Zakładu Higieny” [Annals of the National Institute of Hygiene] od 1950 do 2019 roku, recenzowanego czasopisma naukowego, które poświęcone jest badaniom naukowym w zakresie: bezpieczeństwa żywności i wody, żywienia, higieny środowiska, toksykologii i oceny ryzyka zdrowotnego oraz zdrowia publicznego. Przedstawiono także trudności, z jakimi początkowo zmagало się czasopismo, a także osiągnięcia w ostatnich latach mające na celu podniesienie pozycji międzynarodowej. W artykule omówiono kolejne etapy rozwoju i działalności czasopisma w aspekcie naukowym, redakcyjnym i wydawniczym.

Słowa kluczowe: *czasopismo naukowe, Roczniki Państwowego Zakładu Higieny, Annals of the National Institute of Hygiene, Polska, czasopismo open access, Państwowy Zakład Higieny (PZH)*

The seventy year anniversary of when the Roczniki Państwowego Zakładu Higieny / Annals of the National Institute of Hygiene was founded is a great opportunity to track the journal’s history and development. In particular, its key role for popularising and promoting the achievements of Polish scientists in the fields of: food safety and of household use articles, nutritional hygiene and hygiene at the workplace as well as in water, air, and medicines. Such areas formed the mainstream of scientific endeavour at the National Institute of Hygiene (PZH) in journal’s founding year of 1950.

In the aftermath of World War II public health issues of nutrition, food safety and the working environment became increasingly important, which drove the intense explosion of scientific research at the National Institute of Hygiene and it’s numerous affiliated branches throughout Poland’s cities [1]. This resulted in the need to set up a new journal bringing together scientific achievements in these areas. In the primary assumptions, the journal

was to publish the results of scientific research carried out at the National Institute of Hygiene and its branches.

The initiator of the foundation of the ‘Annals of the National Institute of Hygiene’ (originally: ‘Roczniki Państwowego Zakładu Higieny’) was Professor *Stanisław Krauze*, head of the Department of Research on Food and Articles of Common Use in the National Institute of Hygiene, and the Scientific Council of this Institute, whose chairman was Professor *Ludwik Hirszfeld*, decided to establish the journal.

In the introductory words to the first issue from the year 1950, one can read: “... *thanks to the favorable attitude of the Ministry of Health, Roczniki Państwowego Zakładu Higieny are devoted to the work in the field of testing food and objects of use, food hygiene, occupational hygiene, sanitary engineering and pharmaceutical control. In addition, this journal will publish reports on the activities of the Institute and its departments*”. This Introduction was signed by Professor *Ludwik Hirszfeld* (Chairman of the

Scientific Council), Professor *Feliks Przesmycki* – (General Director of PZH) and Professor *Stanisław Krauze* (the first Editor-in-Chief of Roczniki Państwowego Zakładu Higieny).

The intentions of the authorities of the National Institute of Hygiene were clear. ‘Annals’ were to be not only a journal publishing scientific papers, but also to present a scientific strategy for research on issues closely related to public health. It should be emphasized that at the turn of the 1940s and 1950s, the National Institute of Hygiene together with its branches was the only institution in Poland that could manage to the full extent all areas important for the health of society in the country following the World War II.

The very first published paper heralding the journal’s opening, was a study by Prof. *Stanisław Krauze* et al. published in the 1950 (vol. 1) on hexachlorocyclohexane (HCH), an active ingredient of Gammexane; a commercial insecticide widely available at the time. Compared to DDT, HCH was found to be ineffective in fruit protection. This was also backed up by their toxicological data from animal studies, where a method to determine this compound in food was developed in the Department of Research on Food and Articles of Common Use under the management of Prof. *Krauze*. The work must have been done during 1948-49, only a few years after World War II when Warsaw was just beginning to emerge from ruins. It should be stressed that this research was of a very high quality, where appropriate statistics had been applied to the results and due considerations had also been taken of the physicochemical and biological (toxicological) properties of individual HCH isomers. Most of the papers cited in this publication were from 1946-47, which were very trying times in Poland, where there were shortages

of practically everything; nonetheless a world standard of scientific excellence had been achieved.

In addition to research papers from the PZH in Warsaw, this first 1950 issue published 4 papers from the Wrocław branch and one each from the branches located in Łódź, Kielce and Katowice. The second issue also published papers from other branches in Gdańsk, Wrocław, Łódź, Cracow, Szczecin, Katowice and Wałbrzych. A study from outside the PZH (or its branches) originated from the Medical Academy in Warsaw.

**ROCZNIKI
PAŃSTWOWEGO ZAKŁADU HIGIENY**
polskie czasopismo naukowe z dziedziny higieny i epidemiologii
zestawienie prac higieny żywienia, higieny sanitarnej i kontroli farmaceutycznej

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Figure 1. The cover of the Roczniki Państwowego Zakładu Higieny in 1950

The subject matter covered in 1950 was very wide, where it was clear that in the immediate post-war years, the research topics chosen closely reflected regional concerns of each PZH branch and their practical capabilities (Table 1).

Table 1. Publication topics from the Roczniki Państwowego Zakładu Higieny in 1950

| Subject matter | Publications origin | Number of publications |
|--|---------------------------|------------------------|
| Pesticides, methods of determination, toxicological studies, HCH, DDT | PZH, Warsaw | 3 |
| Nutritional value of food products, nutritional status of the population, study of meals | PZH, Warsaw | 7 |
| Assessment of biocidal properties | PZH, Warsaw | 1 |
| Microbiological and chemical testing of water | Wrocław, branch of PZH | 2 |
| Air pollution | Łódź, branch of PZH | 1 |
| Food research (food contaminants, ingredients, biochemical tests) | PZH, Warsaw | 3 |
| | Katowice, branch of PZH | 2 |
| | Gdańsk, branch of PZH | 1 |
| | Wrocław, branch of PZH | 4 |
| | Łódź, branch of PZH | 3 |
| | Kraków, branch of PZH | 2 |
| | Szczecin, branch of PZH | 1 |
| | Medical Academy in Warsaw | 1 |
| Research on the common use articles | Kielce, branch of PZH | 1 |
| | PZH, Warsaw | 1 |
| Drugs and vitamins, hormones, pharmaceutical raw materials | PZH Warsaw | 4 |
| | Wałbrzych, branch of PZH | 1 |
| | Łódź, branch of PZH | 1 |
| Biochemical studies (people) | Łódź, branch of PZH | 1 |
| | PZH, Warsaw | 1 |
| Chemical analysis of cigarettes | Łódź, branch of PZH | 1 |

The last 1950 issue of the 'Annals' (No. 3-4) concludes with a report on how the 'Scientific Action Plan' had been implemented in 1949 and the plan for the coming year. The report reveals what the national needs for public health had been at this time, which covered all operational aspects of the National Institute of Hygiene (PZH) and its branches; not only those reported in the journal [13]. These publications are of valuable historical significance, in that they document the state of Polish science regarding health protection, research opportunities and scientific priorities in war-torn Poland as well as testifying to the ambitions of scientists at that time. It is noteworthy that the scientific quality and standards of work performed was then very high (ie. in scientific planning & implementation, prioritising scientific needs, publications), whether from PZH branches or from their later transformed status as Sanitary-Epidemiological (SANEPID) stations in 1952; subsequently forming a part of the State Sanitary Inspection.

The papers published in the first issue of 'Annals' in 1950 contained extensive summaries in either English or French; according to the author's preference. In the second issue, all abstracts, if presented at all, were in Polish, whilst in issues 3-4, summaries in Russian appeared preceded by ones in English or French. The last issue published a study by Russian scientists on a simplified method developed to measure the calorific value of meals. Nowadays, it is however unclear whether this published work in the 'Annals' arose from just the needs of the authors or if they were due to other reasons.

After one year of publication experience, the journal editors considered it advisable to provide author guidelines for submissions; the first being published by the Editorial Office in 1951 (Nos. 1-2). As well as general information, manuscript specifications were given, abbreviation policy stated (according to resolutions made by the Polish Academy of Arts & Sciences from 1936), measurement units defined and a unified format adopted for citing and listing the bibliography, that included approved abbreviations for the most often cited journals [11]. These specifications however proved insufficient because the work in the journal's editorial was unpaid and that the foremost duties of editorial personnel was to undertake research and teaching, where preparing appropriately formatted manuscripts required much editorial effort. In the following year it was therefore decided to limit a manuscript volume to 20 pages, with detailed rules on author revisions to be made with a minimum of delay using proof-reading codes according to the Polish Standard PN N-06001, followed by "express resubmission to the journal's editor-in-chief on the very same day". This requirement was necessary because of the need to keep up to the quarterly throughput of publication in a timely manner. In subsequent years, such author instructions and any supplementary requirements were repeatedly given.

In the 'Annals' third publication year (1952, vol. 3), the date at which a manuscript submission had been received was now provided at the end of the article, whilst the actual print date was given on the title page. This demonstrates that the time elapsed from manuscript delivery to publication often took around 6-9 months. Details on forthcoming articles in the following issue (No 4; closing the year) were also provided together with editorial-board portfolio information. However, such a desirable practice did not last too long; nevertheless it demonstrated the editor's striving for transparency in the publishing process. On the last page of the cover, a list was provided of scientific journals published by the State Medical Publishing House (*Panstwowy Zakład Wydawnictw Lekarskich*) and the terms of their subscription. The 'Information for Authors' states the reimbursement for publication, which is paid to the first author, and that the fee for offprints, whenever desired, is 1 to 3 zlotys each payable to the editorial office depending on the manuscript size.

Although the journal was primarily intended for the exchange of scientific information, achievements and describing the experiences of staff from the PZH and its branches (located throughout many Polish cities), it also found numerous readers from other scientific centres. These readers gradually became part of the regular Annals' authors who would like to share their knowledge and scientific experiences. Already in 1952 there were 4 articles published from the Department of Agricultural Technology at the University of Poznan and two articles from the Department of Foodstuffs Research at the Warsaw Medical Academy [5, 15]. Articles from other PZH branches were also published that included the Maritime Branch in Gdynia [21], and the branch in Częstochowa [12].

In 1953, the layout of the cover was changed. The front page remained as before with the journal title, year, issue number and the scope of the subject matter, whilst the table of contents was moved to the inside cover.

The editors introduced a new section to the first issue from 1954, a 'Question and Answer Box', asking readers *'to send reports of unresolved or contentious issues found in the scientific literature or from laboratory practice that were thematically related to the remit of the 'Annals.'* This was supposed to allow the exchange of views/information between scientists. Another new feature was to submit laboratory notes that could be placed in subsequent issues on free pages; the so-called 'vacant pages'. The first entry in the 'Question and Answer Box' concerned manganese accumulation in foodstuffs and that the symptoms of poisoning with this metal can be confused with lathyrism poisoning from certain legumes.

The editorial board was still receiving submissions from its former PZH branches, which by then had acquired a new legal status, upon being transformed into SANEPID stations. Despite their duties being gradually

shifted to control and monitoring, they still managed to continue their research and send articles to our editorial office on identified food hazards, e.g. packaging, as published from the SANEPID Station in Kielce [2]. Up till now, the custom of submitting papers for publication in scientific journals is still being continued by many of the SANEPID stations.

The *Annals'* editors always ensured to maintain an appropriate high level of published materials. A published paper by the then Editor-in-Chief Professor *Stanisław Krauze*, marking the 10th anniversary of independence of the People's Republic of Poland, stated as follows: '*The Annals gave young scientists their first start. While their work was not always up to the required standards at the beginning, advice given by the editorial office to young scientists enabled them to formulate their thoughts in proper scientific fashion. It was very pleasing when improvements were seen in past authors making new submissions* [6]'. This was the approach taken with young scientists who had just embarked on the difficult career path in their scientific development.

Even though reports and future plans for scientific research were no longer being published in the '*Annals*', a separate monograph on this subject was still included by the Director of the National Institute of Hygiene, Professor *Feliks Przesmycki*, who reported on its achievements, especially in those areas where the greatest progress had been accomplished: typhus, acute bowel disease, *streptococcus*, anaerobes, tularemia, antibiotics, *tick-borne encephalitis*, *Heine-Medina* disease, flu, *smallpox*, *trichinosis*, environmental hygiene, Narew river water testing, food poisoning, oil research, collective nutrition, rational nutrition in the canteen, nutritional testing of products and the development of medical guidelines for four group diets [14].

In 1956, Professor *Marcin Kacprzak* was appointed as Editor-in-Chief of the '*Annals*' who was also the head of the Department of Hygiene and Rector of the Warsaw Medical Academy at that time. Before World War II he had worked at the National School of Hygiene of PZH as the head of the Epidemiology and Statistics Department. In the Letter from the Editor he drew attention for the need to include environmental hygiene issues in the '*Annals*' and proposed to increase the frequency of the journal's publication. In 1956, the '*Annals*' accordingly changed from being a quarterly to a bimonthly; i.e. 6 issues published per annum, so forming one volume.

From the third issue onwards, an additional section was introduced entitled '*Abstracts from the literature abroad*', positioned at the end of each issue. These were prepared by PZH scientists, some of whom in 1956-57 were as follows: *S. Krauze, I. Bernstein, K. Chodorowska, S. Adamowiczowa, H. Romanowski, C. Hiszpańska, B. Secomska, W. Morkowska, J. Leowski, H. Młodecki, A. Pliszkowa, Z. Markuze, Z. Bożyk, M. Rakowska, M.*

Marciszewska-Szoplik, J. Kelus, M. Szczygłowa, B. Piasecka, J. Załęski, J. Siedlecka. Others had just signed with their initials. Because of the very limited access to foreign scientific literature in those times, such summaries were an invaluable source of knowledge about global scientific progress made in research.

The first submissions from abroad were published in 1956 & 1957 which were received from the Institute of Hygiene in Prague (Czechoslovakia), dealing with food and nutrition issues [8, 9, 17]. A new section also appeared entitled '*Chronicle*', where the most important events on research in food and environmental hygiene were reported. In addition, a detailed report was provided by Professor *S. Krauze* from the II Convention of the '*International Society for the Study of Nutrient and Life Substances*' held in Hannover. This contained a resolution on the '*hazards of car exhaust fumes*' (resolution 13), in which this health problem had already been recognised, particularly the issues of lead contamination and the introduction of remedial measures thereof, that included abandoning the practice of '*ethylising*' petrol with organic lead compounds [7].

From 1957, the Editors-in-Chief of the '*Annals*' changed quite often. Professor *Alexander Szczygiel* was appointed in 1958 for one year, followed again by Professor *Stanisław Krauze* who up to 1964 alternated this position with Professor *Jan Just*. Between 1965 and 1981 only Professor *Jan Just* held this position. This however did not affect the journal's publication which continued to come out bimonthly, publishing ever more and more work of authors outside the PZH and SANEPID stations.

The PZH celebrated its 45th anniversary in 1963 chaired by Professor *Marcin Kacprzak*, and a report of these events was published in the following year. As well as state representatives being present during the proceedings, there were other delegates from national institutes as well as those from abroad: the Academy of Sciences and Institutes of Microbiology and Hygiene from the Soviet Union, Bulgaria, Czechoslovakia, Yugoslavia, the German Democratic Republic and the Institute of Serology in Copenhagen. It is also worth noting that as part of the PZH jubilee, the 70th birthday of Professor *Feliks Przesmycki* was included in the celebrations; a previous PZH director and oldest employee of this Institute [20].

In the 15th year since its inception, the editors of the '*Annals*' provided a summary of their publication record, which showed that 812 scientific papers had been published, mostly dealing with food and nutritional hygiene [22].

A growing and noteworthy interest of researchers from other institutes had been observed who wished to publish in our '*Annals*', thereby helping to make the journal well-known and as one that can be relied upon in having an increasing number of subscribers and readers.

Jumping ahead 10 years to 1974, vol. 25 (the 30th anniversary of the Polish Peoples Republic (PRL)), the currently acting Editor-in-Chief Professor *Jan Just* reported that the 'Annals' had now published 1567 original papers since its inception, i.e. another 755 papers over this decade. This was a significant advance reflecting intensified scientific and research activities along with a raised interest in submitting to the journal [3]. This year was also the 25th anniversary of the journal's founding and Professor *Jan Just* wrote an article describing achievements made so far and reported an assessment statement made by the 4th Faculty of Medical Sciences of the Polish Academy of Sciences 'The PZH Annals belongs to Group I journals without any reservations'. He also stressed that the 'Annals' are constantly referred to in Chemical Abstracts, Biol. Abstracts, *Index Medicus* and Nutrition Abstracts [4]. The following year (1975), Professor *Stanisław Krauze* presented in issue No 3 the achievements of scientific research and control over food and household use articles in Poland during 30 years, underlining the significant contribution made by the Department of Food and Articles of Common Use at the PZH.

In 1977, an article was published by *Halina Sadowska* from the Ministry of Health and Welfare presenting an analysis of food laws that were current in different countries and confronted it with the Polish 'Act on Health Conditions of Food and Nutrition' from 1970 [16]. The author emphasised the impact of the FAO/WHO *Codex Alimentarius* Commission on food legislation, in which Poland had also participated. Two years later in 1979, *Aleksander Szczygieł* presented current nutritional issues facing Poland, paying attention to nutritional shortcomings and health problems so arising, as well as the changed outlooks on the principles of rational nutrition [19]. Another article by *Halina Mazur's* in the same issue described health impact studies performed on polyvinyl chloride (PVC) packaging for foodstuffs that took account of the harmful effects produced by chemical substances present in this material [10].

In 1982, Professor *Doctor h.c. Maksym Nikonorow* became Editor-in-Chief of the 'Annals' who had been a long-time head of the Department of Food and Articles of Common Use Research at the PZH. He managed the editorial office until his demise in 1985. Assoc. Professor *Bogumila Urbanek-Karłowska* then took over the Editor-in-Chief position who had hitherto been the secretary to the Editorial Office.

In 1986 the 'Annals' volume 37, number 3, was devoted to the memory of Professor *Maksym Nikonorow*, where the scientific work undertaken at his Department were published.

In 1988, abstracts of works from journals abroad were published for the last time, (previously launched in 1956), because of the improving situation in the country and the easier access to foreign journals describing the latest scientific developments.

In 1990, the State Department of Medical Publishers and the 'Ruch Company' withdrew respectively from the publishing and distribution of the 'Annals' due financial difficulties. Both of these tasks were taken over by the PZH which have been running these until now. However, the high costs of publishing led the PZH to revert back to publishing quarterlies from 1991 onwards.

In 1994, *Dr Kazimiera Ćwiek-Ludwicka*, the author of this article, took over the position of the Annals' Editor-in-Chief and who also heads the Section on Food Contact Materials at the Department of Research on Food and Articles of Common Use at the PZH. She has been fulfilling this role for the last 25 years.

The mission of the 'Annals' has always been the pursuit of the highest possible scientific standard by all its Editors-in-Chief. The names of the scientists holding this position up to the 70th anniversary of the journal (1950-2019) are given in Table 2 and have always been entrusted to scientific staff of the PZH.

Table 2. Editors-in-Chief of the *Roczniki Państwowego Zakładu Higieny* during 1950-2019

| Names of the Editors-in-Chief | Tenure periods of the Editors-in-Chief | Number of years as Editor-in-Chief |
|---|--|------------------------------------|
| Prof. dr Stanisław Krauze | 1950-55, 1959, 1962-64 | 9 |
| Prof. dr Marcin Kacprzak | 1956, 1957 | 2 |
| Prof. dr Aleksander Szczygieł | 1958 | 1 |
| Prof. dr Jan Just | 1960 - 1961, 1965-1981 | 18 |
| Prof. dr Maksym Nikonorow | 1982 - 1985 | 5 |
| Assoc. Prof. Bogumila Urbanek-Karłowska | 1986 - 1994 | 8 |
| Dr Kazimiera Ćwiek-Ludwicka | 1994 - 2019 (and still) | 25 |

In 1996, the No. 1 issue was devoted to presentations from a Symposium entitled ‘Organochlorine compounds in the environment: a health risk’, jointly organised by the Ecology and Health Foundation and the Polish Toxicological Society, which took place on 4-6th May 1995 in Dębe near Warsaw. Its aim was to assess the health risk of organochlorine compounds collected from various environmental sources in Poland. These compounds consisted of volatile chlorinated hydrocarbons (THMs) and polychlorinated aromatic hydrocarbons that included organochlorine insecticides, polychlorinated biphenyls (PCBs), dioxins and furans.

In subsequent years the ‘Annals’ were regularly issued without any delays. The constant raising of the journal’s prerequisite quality thresholds in science has led to significant improvements in manuscript submissions, thereby increasing the journal’s standing but at the expense of fewer papers being accepted for publication, following peer-review.

After 2004, intensive efforts were made to raise the scientific ranking of the journal to make it more attractive to readers from abroad. Gradually the make-up of the editorial committee was expanded to include scientists from other institutes in Poland.

The journal’s format was increased in 2009 and the text is printed in two columns so as to be compatible with commonly used standards.

An International Scientific Board has been operating since 2012, with increasing number of scientists from foreign scientific institutions being invited to participate. From 2013 the journal has been published exclusively in the English language. On the present cover, next to the current name of the journal, the English title is also given; i.e. Annals of the National Institute of Hygiene (Figure 2).

A list of subject editors is also provided, that encompass the following areas of expertise: food safety, food and environmental analysis, nutrition, environmental hygiene, toxicology and risk assessment, public health together with a names list of the language and statistical editors.

By 2016, foreign scientists now represent more than half of the International Scientific Board. They come from scientific institutions and universities abroad, (17 members), as follows: two members each from England and China, three from the USA and one each from Australia, Belgium, Denmark, Spain, the Netherlands, Japan, Colombia, Mexico, Pakistan and Sweden.

Foreign reviewers are invited to peer-review submissions. Double-blind review process is maintained. Approved submissions, after the review, are assigned a DOI (*Digital Object Identifier*) that allows them to be published online onto the journal’s website without waiting for the entire issue number to be completed and printed. This ‘on-line first’ publication thus allows earlier chances of a paper being cited.

JOURNAL WEBSITE

The website of the ‘Roczniki Państwowego Zakładu Higieny’ was launched in 1995 intended to provide readers with ready on-line access to its publications as well as informing about how the journal operates, importantly on the editorial staff, instructions for authors and for reviewers etc. This being constantly updated where new functions have been introduced enabling rapid access to full-text articles from the last 25 years as obtained by searches using author’s name, key word, year of publication or article’s title [18].

BIBLIOGRAPHIC DATABASES

The ‘Roczniki Państwowego Zakładu Higieny’ have been indexed for many years in both domestic and foreign bibliographic databases, including PubMed / Medline, Scopus, EBSCO, AGRO, Polish Medical Bibliography/Central Medical Library, Index Copernicus Int., CNKI Scholar, and DOAJ (Directory of Open Access Journals), the largest international database of peer-reviewed open access journals.

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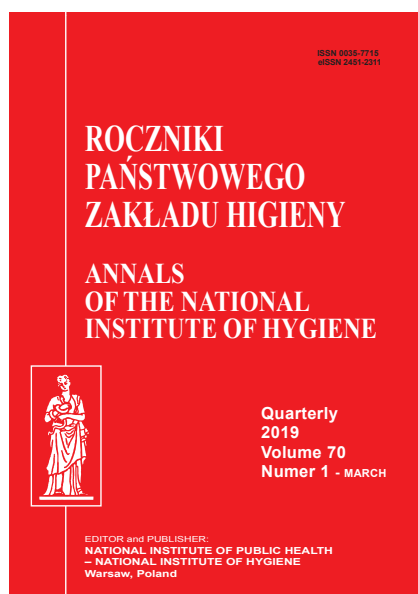


Figure 2. The cover of the Roczniki Państwowego Zakładu Higieny in 2019

The 'Roczniki Państwowego Zakładu Higieny' [Annals of the National Institute of Hygiene] established in 1950 by the National Institute of Hygiene are issued continuously to the present day.

The further development of our journal lies in the hands of the authors. We deeply believe that the scientific articles submitted for the publication in the Roczniki Państwowego Zakładu Higieny/Annals of the National Institute of Hygiene being the subject of research in the broadly understood range of public health, environment, food and nutrition, water and air safety, as well as the quality of healthcare will be of interest of readers in Poland and abroad. And the journal itself will become a platform for the exchange of scientific experiences for numerous scientists interested in these scientific areas.

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