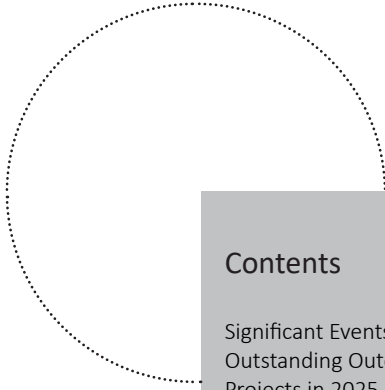




YearBOOK
2025





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Dear readers,

Research and innovation are currently developing in a rapidly evolving world shaped by global health, environmental, and economic challenges. Consequently, areas such as animal health, food safety, antimicrobial resistance, and sustainable agriculture are becoming increasingly important not only within science, but also for society as a whole. The Veterinary Research Institute has long been involved in addressing these challenges through both basic and applied research. In this regard, 2025 was a period of intensive scientific work, development of research infrastructure, and further strengthening of collaboration with both domestic and international partners.

The Institute's core mission is to support the sustainable development of animal production in line with the principles of prudent antibiotic use and the continuous improvement of animal husbandry standards. This is reflected in the Institute's research focus, which is primarily directed at infectious and non-infectious animal diseases, the search for alternative approaches to antibiotic use, ensuring the biological and chemical safety of food, and the development of modern biotechnological and reproductive methods. These activities are supported in the long term primarily through institutional funding under the Long-term Conceptual Development of the Research Organization project, funded by the Ministry of Agriculture.

In terms of scientific results, a high level of publication activity was maintained in 2025. Although the number of papers published in journals ranked in the first or second quartile according to the Web of Science database was slightly lower than in some previous years, it has remained stable over the long term and continues to exceed planned targets. The number of other publication outcomes has likewise remained above the planned level, confirming the VRI's sustained scientific performance.

Significant results were achieved in the field of applied research. In 2025, two patents were registered in databases, with VRI employees among the inventors, and further patent applications are currently under national and international review.

The development of further applied results also continued, including functional samples, prototypes, methodologies, and utility models. The practical application of the research is further demonstrated by the registration of the biotechnological product QuoCNA on the Slovak market.

In the project area, the implementation of ten new special support projects financed from national and European sources was launched in 2025. The projects were obtained, for example, through programmes of the National Agency for Agricultural Research, the Czech Health Research Council, the Technology Agency of the Czech Republic, and the Operational Programme Technologies and Applications for Competitiveness. The activities included two Institute-wide projects focused on the development of employees' soft skills, the implementation of open science principles, strengthening cybersecurity and institutional resilience, as well as supporting parents returning to scientific work after a career break. In the area of contract research, 2025 ranks among the more successful years, with total funding exceeding CZK 16 million. International collaboration remains an important part of the Institute's activities, within which projects funded by the Horizon programmes were implemented.

An important area of development involves the upgrade of infrastructure and the reduction of operational energy consumption. In 2025, a subsidy was obtained from the State Environmental Fund under the National Recovery Plan for a project aimed at a comprehensive reduction in the energy consumption of the Institute's buildings. The planned measures include, in particular, the renovation of heating systems, the

insulation of selected buildings, and the installation of additional photovoltaic panels. At the same time, 2025 was a significant milestone for the VRI, marking the 70th anniversary of its establishment. We celebrated this anniversary at the beginning of February during a social gathering at the Semilasso Cultural Centre. The event was not only a commemoration of the Institute's history, but also a confirmation of the continued relevance and lasting importance of its scientific mission. Areas such as animal health, food safety, reproductive biotechnology, antimicrobial resistance, animal welfare, and environmental aspects remain to be of key importance at both national and international levels, providing a strong foundation for the further development of research and applied activities.

Toward the end of the year, selection procedures were held for the positions of director and heads of departments. As a result, the VRI enters 2026 with a stable personnel structure.

We believe that this Yearbook provides a comprehensive overview of the Institute's activities and achievements over the past year, while offering insight into the work of its research teams and their contribution to society. We would like to express our gratitude to all employees and partners whose work and collaboration form the foundation of the Institute's success.

The Veterinary Research Institute enters the next period with a clear mission—to advance high-quality science and transfer its results into practice so that they bring tangible benefits to agriculture, veterinary medicine, and society as a whole.

Doc. MVDr. Martin Faldyna, Ph.D.
and Authorship Team

VRI - Medium-term goals until 2030

SWOT ANALYSIS

Strengths

Scientific area- high proportion of publications in journals with impact factor (IF)

- The capability to produce results with high potential for practical application
- High-quality scientific infrastructure with possibilities for further expansion
- NCC Project- National Centre for Biotechnology in Veterinary Medicine
- Strong partnership with industry
- Economic stability and commercial capabilities
- Implementation of the HR Award personnel policy since 2022

Opportunities

- Introduction of a new product to the market
- Biotechnology Prototype Laboratory
- Cleanroom laboratory for establishing good manufacturing practices to scale-up production
- Expanded workplace of experimental animal facilities in BSL 3 mode
- Political and environmental challenges
- Overlap with public health and the application of One Health principles
- Structural projects of OP JAK, OP TAK, and others
- The use of artificial intelligence tools

Weaknesses

- International relevance in securing projects
- PR strategy and public communication
- IT and the digitalisation of processes
- Financial incentives for young researchers
- Popularisation of R&D
- Open Science Policy

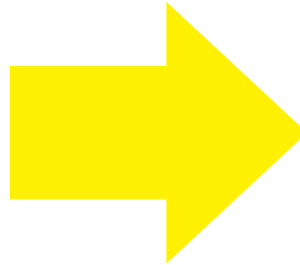
Threats

- Alterations in R&D funding at the institutional level
- Uncertain funding sources for development and strategic goals
- Legislative changes and industry disinterest in research results
- Demotivation of young researchers

Justification of the operation and future of the VRI

VISION

Conducting high-quality research for transfer to practical users in veterinary medicine and agriculture for the benefit of the society and in alignment with One Health principles.



2030

MISSION

THE FOLLOWING VALUES ARE CONSIDERED AS CRUCIAL BY THE INSTITUTE'S MANAGEMENT:

Support for excellence and innovation - developing science and innovation in veterinary medicine with the aim to improve animal and human health.

Social responsibility - accepting suggestions from the professional community to address societal needs.

Partnership and collaboration - research in collaboration with domestic and foreign partners, including the dissemination of results and their transfer to end users.

Integration of climate adaptation into the Institute's strategy, with an emphasis on animal health, disease transmission, and systematic support for the One Health approach.



GOALS

The Veterinary Research Institute has long been dedicated to research in the following areas:

- Prevention
- Control
- Diagnosis and treatment of animal diseases
- Welfare and health care of farm animals

The Institute also conducts scientific research at the intersection of animal, human, and environmental health, in line with the One Health philosophy, particularly in food safety, wildlife and ecosystem health, zoonotic diseases, and scientific support for public policy.

VRI STRATEGIC PRIORITIES FOR 2025:

1) Scientific area

The Institute's goal is to maintain and increase the number of publications in professional journals with impact factor above the median of the specific fields. At the same time, it will focus on strengthening its publication activity in journals aimed at professional and agricultural audiences, as well as on topics reflecting current challenges, particularly the impacts of climate change on animal health and the spread of diseases. An important component will also be the promotion of open science principles, especially the sharing of data and research results.

2) Application area

The goal is to increase the number of outcomes with legal protection (utility models, patents) and to increase their dissemination through licencing. The Institute will continue to develop cooperation with the commercial partners with the aim of more effectively utilising the results of applied research including activities in line with the One Health approach. An integral part of this strategy is increasing the volume of finances through invoiced activities.

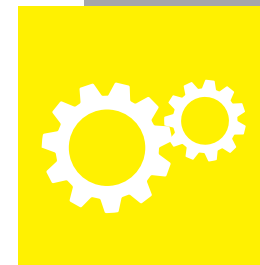
3) Project area

The goal is to maintain a stable volume of resources from special-purpose support projects. Furthermore, the Institute will focus on increasing the number of projects implemented in collaboration with industry partners and on expanding the portfolio of international projects, particularly in the areas of animal health, zoonoses, and climate change, as well as on increasing the overall volume of funding.

4) Development area

The Institute will continue to reduce the energy consumption of its buildings and diversify energy sources in line with sustainability principles. At the same time, it will further develop modern research infrastructure and technical facilities. In the area of human resources, the Institute will focus on adapting to new technological trends, digitalisation, and the systematic support and implementation of artificial intelligence (AI) tools in the Institute's scientific, analytical, and operational activities.

TOOLS FOR ACHIEVING THE INSTITUTE'S GOALS



To achieve its strategic and professional objectives, VRI employs a group of tools that help manage research, application, and development activities effectively and in line with the Institution's long-term direction.

The crucial tools include:

- An internal evaluation system that enables continuous monitoring of the performance of research teams and individuals, including both qualitative and quantitative outcome indicators.
- Bonus and Licence Rules that motivate employees towards high performance and innovation through a transparent system of bonuses and interests in applied results.
- Strategy of the Long-term Conceptual Development of the Research Organization, which defines the continuity and coherence of strategic planning, including an emphasis on strengthening infrastructure, human resources, and international collaboration.
- Creation and efficient use of the property reproduction fund that enables investments in the renewal and development of instrumentation and technical equipment.
- Efficient use of specific resources, particularly that from public tenders, structural funds, and contractual research.

These tools provide essential support for the implementation of the Institute's research strategy while enhancing its flexibility and competitiveness in a dynamically changing research environment.

INFRASTRUCTURE AND INVESTMENT DEVELOPMENT

The Institute's premises offer considerable opportunities for further development and renovation of its infrastructure: In 2025, the Institute focused on further development of specialized workplaces, infrastructure digitalisation, and improving the energy efficiency of its buildings.

The Institute includes a semi-operational Grade "D" cleanroom. It has been put into operation and is designed for the development and production of semi-solid and liquid medicinal and cosmetic forms for non-injectable use, including veterinary drugs and preparations. This unit represents a significant element in linking research with the application sphere, particularly in the fields of pharmacy and veterinary medicine.

As part of the implementation of measures under the EPC (Energy Performance Contracting) model, measures were adopted to reduce the energy consumption of buildings, and photovoltaic panels were installed. These steps contribute to increasing the Institute's energy self-sufficiency and the sustainability of its operation.

The Institute is equipped with state-of-the-art laboratories for work under both infectious and non-infectious conditions, as well as experimental animal facilities that allow experiments to be conducted at a high level of biological safety (BSL-3). This infrastructure is being further developed with a focus on integrating digital tools and elements of artificial intelligence to support research, data analysis, and operational management.

STRATEGIC INVESTMENTS IN SCIENTIFIC INFRASTRUCTURE

As part of the Institute's medium-term development plan, key infrastructure priorities have been defined to further strengthen capacities for modern biomedical and veterinary research, while also enabling more effective transfer of research results to end-users. At present, however, it has not been possible to secure adequate funding sources for the implementation of the planned investment projects. The Institute will therefore continue to actively seek suitable funding opportunities, particularly within national and international research and innovation support programmes.

The strategic plans include in particular:

- Construction of a Veterinary Biotechnology Prototype Unit (PROBIOVET), which will serve for the development, testing, and transfer of new technologies into the application sphere. Its main benefit will be the increase in the technological readiness levels (TRL) of research results, shortening the path to their practical application, and support for collaboration with industry.
- Expansion of experimental animal facilities under BSL-2/BSL-3 regimes, which will enable research experiments on large animals under conditions meeting high biological safety standards. This capacity is particularly crucial for the study of infectious diseases, zoonoses, and the development of veterinary vaccines and therapies.

At present, it has not been possible to secure adequate funding sources for the implementation of the planned investment projects. The Institute will therefore continue to actively seek suitable funding opportunities, particularly within national and international research and innovation support programmes.

The implementation of these strategic projects will significantly strengthen the Institute's technological infrastructure, support the integration of modern digital tools, including artificial intelligence, and enhance its ability to respond to current research challenges in the areas of animal health, food safety, and biological protection.



Significant Events

Veterinary Research Institute celebrated its 70th anniversary with special gathering

The history of research at the Veterinary Research Institute was commemorated during a social event held to mark the 70th anniversary of its establishment. The event took place on 7 February 2025 at the Semilasso social centre in Brno.

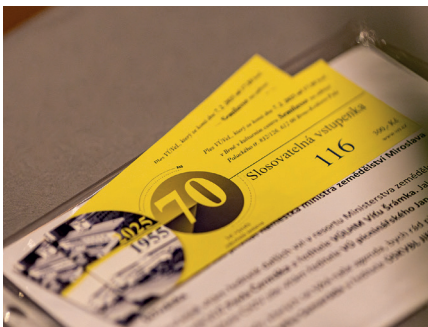
In his ceremonial speech, the Director of the Institute, Martin Faldyna, introduced the audience to the history and current activities of the VRI and highlighted its achievements. He also mentioned that the Institute's specialized focus evolved in response to the changing demands of animal production — from combating major infectious diseases, through the introduction of reproductive technologies and production intensification, to ensuring the safety of animal-derived foods, and ultimately to addressing antimicrobial resistance.

Joining the Institute's well-wishers, Miroslav Skřivánek, Deputy Minister of Agriculture of the Czech Republic, gave praise the excellent results and outstanding reputation of the Veterinary Research Institute in his salutatory speech.

The presence of key representatives of universities, government authorities, partner organizations, and partner companies — whose support made it possible to organize the event on such a scale — unquestionably enhanced its significance of the event.

The programme included the presentation of awards to prominent figures in the history of the Institute, aimed at highlighting their contributions to the field of veterinary medicine. In memoriam medals were awarded to Dr. Josef Krejčí and Professor Karel Hruška for their contributions to the field. The awards were presented to the recipients' families. The third awardee was Dr. Pavel Alexa, who was selected by the Institute's employees and who received the award in person.

During the celebration, guests had the opportunity to view an exhibition of historical photographs displayed within the social centre's premises.



The Veterinary Research Institute and Zoo Brno Discussed Opportunities for Collaboration



Representatives of the Veterinary Research Institute (VRI) and Zoo Brno met on 25 February 2025 to discuss possible areas of cooperation in veterinary medicine, research, and animal care. The shared goal is not only to improve conditions for animal husbandry in the zoo, but also to expand research activities in the field of veterinary care and animal health protection. The meeting was opened by the Director of the VRI, Dr. Martin Faldyna, who presented the Institute's history and achievements in veterinary research and diagnostics. He emphasized the Institute's long-standing tradition in studying infectious and non-infectious animal diseases, as well as its importance in protecting the health of both farm and wildlife species. Curators of the animal management practices section of Zoo Brno, Ing. Jaroslav Prchal and MSc. Bernardy, subsequently outlined the areas in which they would like to cooperate with the VRI. The zoological garden is not limited to exhibiting animals; it also has a research mission. At present, it conducts animal testing mainly prior to transport and in cases of suspected disease. However, the aim is to expand these activities to include preventive health monitoring. The Zoo also seeks to make use of the VRI's expertise for testing samples from various animal materials and to provide researchers with access to samples from less common taxa for scientific studies. Another key point of the meeting was the possibility of collaboration in improving animal husbandry conditions directly within the Zoo premises. Plans include, for example, the construction of a specialised pavilion for rearing young animals, as well as the establishment of a research unit and a small veterinary hospital for the care of animals within the Zoo. VRI researchers subsequently presented their professional expertise and experience that could be offered to Zoo Brno. The cooperation could include pathogen diagnostics and analysis, veterinary consultancy, and assistance in disease prevention. Both parties agreed that joint work on these projects would bring significant benefits not only to the Zoological garden and the Veterinary Research Institute, but also to the protection of health and welfare of captive animals. An agreement was reached to prepare a Memorandum of Cooperation, and further steps will focus on developing a specific plan for cooperation and its gradual implementation.



Successful Completion of the Habilitation Procedure

On 26 May, the habilitation procedure of MVDr. Martin Faldyna, Ph.D., took place before the Scientific Board of the Faculty of AgriSciences of Mendel University. The procedure was preceded by a habilitation lecture on the topic “Colostrum and Lactogenic Immunity in Pigs” and the defence of the habilitation thesis entitled “Supopulations of Canine Lymphocytes – from Theory to Practice” at the meeting of the Scientific Board. The thesis consisted of papers published on the given topic in prestigious journals (Q1–Q2). MVDr. Faldyna responded to all questions from the three reviewers, whose evaluations were positive, as well as to questions from the audience. In the subsequent secret ballot, all members of the Scientific Board present voted in favour of his appointment as Associate Professor. The Rector of Mendel University appointed MVDr. Martin Faldyna, Ph.D., as Associate Professor, effective June 1, 2025.



Doc. Ivan Rychlík Appointed Professor

Doc. RNDr. Ivan Rychlík, Ph.D., from the Department of Microbiology and Antimicrobial Resistance of the Veterinary Research Institute (VRI), along with 86 other candidates, was appointed Professor on 16 June 2025 in the Great Hall of Karolinum, in the presence of President Petr Pavel and the Minister of Education, Youth and Sports Mikuláš Bek. On the proposal of the Science Council of the University of Veterinary Sciences Brno, Doc. Rychlík was appointed Professor in Infectious Diseases, Microbiology, and Immunology.



VRI Is Part of a New Collaboration to Conserve Przewalski's Horse and Other Endangered Mammals

VRI is involved in a collaboration to conserve Przewalski's horse and other endangered mammal species

A Memorandum of Cooperation focused on the conservation of the Przewalski's horse and other endangered mammal species was signed today by Prague Zoo, Czech Academy of Sciences, and other leading Czech public research institutions. The joint activities defined in the document include the effective conservation of genetic material as well as the protection of endangered species both in their natural habitats and ex situ. A similarly comprehensive conservation programme has so far been lacking in the Czech Republic.

According to the International Union for Conservation of Nature, approximately 45,000 species of animals, plants, and fungi are currently threatened with extinction. A key step in their conservation is the preservation of the remaining genetic diversity in the form of viable biological material—primarily somatic cells as well as germ cells. Using advanced technologies, it will be possible to prevent the complete extinction of these species and enable their reintroduction into the wild, as has already been successfully achieved in the case of the Przewalski's horse.

The Memorandum of Cooperation was signed at the headquarters of the Czech Academy of Sciences on Národní Avenue. In addition to Miroslav Bobek on behalf of Prague Zoo and Radomír Pánek on behalf of the Czech Academy of Sciences, the signatories included Jan Malínský, Acting Director of the Institute of Experimental Medicine of the Czech Academy of Sciences; Jana Rychtářová, Acting Director of the Institute of Animal Science; and Ildikó Csölle Putzová, Deputy Director of the Veterinary Research Institute.

According to the Memorandum, Prague Zoo undertakes to provide biological material from the Przewalski's horse and other mammals and to participate in educational activities. The Czech Academy of Sciences will coordinate the activities of the participating institutions. The Institute of Experimental Medicine will carry out genetic analyses, assess sample quality, and develop advanced cellular techniques. The Institute of Animal Science will be responsible for the preservation of cell lines, cryopreservation and lyophilisation of sperm, as well as genomic analyses. The Veterinary Research Institute will focus on molecular and cytogenetic analyses and will collaborate on the preservation of genetic material.



VRI at the Brno Science Festival 2025

Brno, 8 September 2025 – The Veterinary Research Institute (VRI) again participated in the Science Festival in Brno, held from 5 to 7 September at the Brno Exhibition Centre. The festival drew a record-breaking turnout of over 15,000 visitors, who could choose from a programme organized by 102 institutions and organizations. VRI could not be absent from this unique event. At our stand, visitors had the opportunity to learn about current research in veterinary medicine and find out how scientific discoveries help protect the health of both animals and humans.

Visitors engaged in interactive activities, explored our laboratories through demonstrations, and met experts who presented not only current projects but also the way VRI continues the legacy of generations of scientists.

The Director of the Institute, Martin Faldyna, emphasized the importance of participating in the event:

“The Science Festival is a great opportunity to bring our work closer to the general public. We are pleased to have been able to show

how we link modern science with practical challenges in animal and human health, and we are delighted by the great interest visitors expressed in our exhibition,” he said.

The festival organiser, Brno Observatory and Planetarium, highlighted the record attendance and the important role of all participating institutions. As stated in the closing acknowledgment: “Your participation was an integral part of the festival, which this year saw a record number of visitors and presenters.”

This year, the Science Festival in Brno became a place not only for exploring the fascinating world of science and technology but also for bringing together experts and science communicators from across various fields. VRI looks forward to continuing the collaboration and is already preparing for next year’s edition.

VRI’s participation in this event was supported by the Czech Ministry of Agriculture as part of a programme to promote education and advisory services.



Researchers' Night at Mendel University: Wealth Under the Microscope

Brno, 6 October, 2025 — This year's Researchers' Night at Mendel University attracted hundreds of visitors of all ages. Involved in the programme was a team from the Veterinary Research Institute, which prepared a series of activities for the public as part of the Wealth series, with topics including "wealth under the microscope, antibiotics, and clean water".

The interactive section sought to reveal the fascinating world of microorganisms and demonstrate that even in everyday environments, such as a drop of pond water, an immense diversity of life can be found. Visitors could experience using a microscope and glimpse a world typically hidden from sight.

Another activity was the "Search for an effective antibiotic," which

playfully highlighted the importance of the prudent use of these medications. The programme also focused on the topic of clean water – a vital natural resource without which life would not be possible. Discussions with visitors showed that people are increasingly aware of the importance of protecting water sources and the connections to human health and ecosystems.

The entire evening confirmed that the wealth of science lies not only in discovering new knowledge but, above all, in sharing it with the public. The interest displayed by both children and adults showed that science communication has a firm place and can be both inspiring and enjoyable.



Veterinary Research Institute Hosted the 25th Anniversary Seminar on Exotic, Wildlife, and Zoo Animals

Brno, 5 October 2025 – The 25th anniversary seminar “Exotic, Wildlife, and Zoo Animals” was held at the Veterinary Research Institute (VRI) in Brno during the first weekend of October. The event is customarily organized by the Czech Association of Zoo and Wildlife Veterinarians (CAZVV), and this year, it was held in collaboration with VRI in Brno. This year’s seminar carried the subtitle “Don’t Be Afraid of Science” and attracted dozens of specialists from diagnostic laboratories, zoological gardens, and veterinary practices from the Czech Republic and Slovakia.

The programme was opened by the Institute’s director, Doc. MVDr. Martin Faldyna, Ph.D., who highlighted 70 years of VRI’s history and its contributions to veterinary research and clinical practice. This was followed by a series of expert lectures offering a diverse overview of current topics – from cytogenetic examinations of zoo animals and the diagnosis of helminth infections and intoxications to case studies of rare clinical cases.

The Association’s president, Professor Zdeněk Knotek, in his presentation “The Layperson Is Surprised, the Scientist Is Amazed,” insightfully and humorously reminded the audience that a scientific perspective and everyday practice can go hand in hand, and honesty is the foundation of publication ethics.

“The atmosphere of this year’s seminar was particularly friendly and inspiring. After years in which experts mostly met online, it was clear how much they value in-person meetings. VRI provided the ideal

setting, and I am pleased that the seminar’s tradition continues to develop right here,” said Prof. Zdeněk Knotek, the event’s main organiser.

The afternoon session featured noteworthy case studies from zoological gardens – for example, gastric ulcers in Malayan tapirs, avian pox infections in *Recurvirostridae*, and the treatment of a beak fracture in a magpie goose. The closing report on the direct involvement of association member Dr. Lukáš Pavlačík in the rescue of a forest elephant under field conditions in the Congo rainforest, received great acclaim. The discussions showed that linking clinical practice with scientific research is key to the successful treatment of rare and exotic species.

The full-day Saturday seminar was followed by a Sunday tour of the VRI laboratories, where participants had the opportunity to become familiar with state-of-the-art laboratory equipment, modern diagnostic methods, and the Institute’s research facilities.

“It’s wonderful to see the veterinary community staying united – from students to experienced professionals. Sharing experiences across disciplines advances both our knowledge and animal care,” added one of the participants.

The 25th anniversary session confirmed that the seminar “Exotic, Wildlife, and Zoo Animals” is not only a professional highlight but also a social highlight of the year for everyone involved in the protection and health of wildlife, zoo animals, and exotic species.



Science Through Play: Children Explored the Work of Scientists at the Technical Museum

Brno, 18 October 2025 – The Veterinary Research Institute (VRI) participated in the “Science Through Play” event organized by the Technical Museum in Brno. Visitors of all ages had the opportunity to discover science in an interactive and hands-on way—through games, experiments, and interactive stations.

Children tried pipetting colourful images based on templates, looked inside an anaerobic chamber, and learned about the principles scientists use in their work. There were also stations focused on antimicrobial resistance, as well as quizzes on biology and genetics.

The aim of the event was to introduce science to children in an engaging and accessible way and to spark their curiosity—the foundation of all scientific inquiry.

“Children are naturally curious, and when we show them that laboratory work can also be fun, they often ask questions that even adults wouldn’t think of. And that is exactly our goal—to inspire an interest in science and to show that behind every discovery lies human cu-

riosity,” said Magdaléna Chánová from the Veterinary Research Institute.

The event attracted dozens of families and confirmed the growing interest in science communication in Brno. The Veterinary Research Institute regularly participates in similar educational activities as part of its outreach efforts in the areas of animal health, environmental protection, and the prevention of infectious diseases. The Institute’s management would like to thank everyone involved in organizing and running the event, including both scientific staff and activity coordinators. Special thanks go to Andrea Ďurišová, the coordinator of outreach activities, who has long been dedicated to connecting the Institute’s scientific work with the public and young people.

The participation of the Veterinary Research Institute in this event was supported by the Ministry of Agriculture of the Czech Republic as part of a programme supporting education and advisory services.



Combating Resistance Together – European Antibiotic Awareness Day and World Antimicrobial Awareness Week at VRI

Observed annually on 18 November, European Antibiotic Awareness Day is a cornerstone of global initiatives to promote responsible antibiotic use and combat the rising threat of antibiotic resistance. VRI has traditionally participated in these activities – this year through the professional micro-conference “On the Brink of Resistance: Superbugs and New Weapons Against Them,” scheduled for 5 November 2025 as part of the VRI Academy educational series. The scientific guarantor of the event is RNDr. Lubomír Janda, Ph.D., and the coordinator of the entire VRI Academy series is Doc. MVDr. Soňa Šlosárková, Ph.D. “It is important to note that maintaining animal health relies primarily on preventing diseases and using antibiotics responsibly – measures that should be in place long before any problem arises,” says Doc. MVDr. Soňa Šlosárková, Ph.D. “Our November professional event is thus more than a single reminder; it marks the start of a wider discussion on safeguarding the effectiveness of antibiotics for the future – for both humans and animals.”

VRI has long been a leading institution in research on antibiotic resistance and the prudent use of medications in animals. At the November micro-conference, VRI researchers, together with specialists from Masaryk University, Brno University of Technology, St. Anne’s University Hospital, and the National Institute of Public Health, will present their studies on diagnosing infectious diseases, monitoring bacterial resistance, and developing new methods for treatment and prevention.

VRI brings together research, innovation, and education:

The Institute combines cutting-edge research with practical impact – from the development of innovative methods to the education of professionals and the strengthening of collaboration between veterinary and human medicine. By participating in projects under NaCe-BiVet, One Health, EU4Health and Agency for Health Research of the

Czech Ministry of Health (Project No. NU22-05-00475), VRI actively contributes to international efforts to safeguard the effectiveness of antibiotics and ensure the health of future generations.

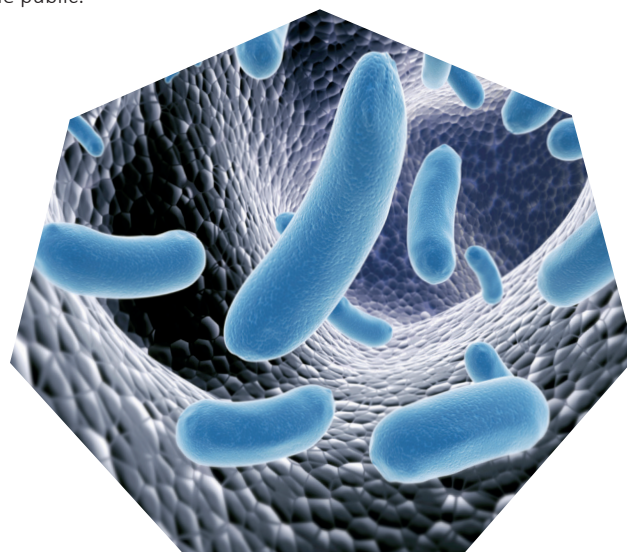
Antibiotics as a shared resource – One Health, One World:

European Antibiotic Awareness Day (18 November) and the following World Antimicrobial Awareness Week (18–24 November) are international initiatives of the European Centre for Disease Prevention and Control (ECDC) and the World Health Organization (WHO). Their aim is to raise awareness of the increasing risk of antibiotic resistance and to highlight the “One Health” principle, which aims to interconnect the health of humans, animals, and the environment.

“Antibiotics are irreplaceable – but only if we handle them with respect,” adds Mgr. Magdaléna Crhánová, Ph.D., Head of the Department of Microbiology and Antimicrobial Resistance at VRI. “Any improper use, whether in human or veterinary medicine, diminishes their effectiveness. That is why research into alternatives, resistance monitoring, and the education of professionals and the public is extremely important.”

Bacterial resistance – a silent pandemic:

European Antibiotic Awareness Day and World Antimicrobial Awareness Week go beyond mere reminders; they call to action to reduce unnecessary antibiotic use, promote disease prevention, and enhance communication between human physicians, veterinarians, and the public.



Prof. Ivan Rychlík Had a Presentation at the Prestigious Forum “Vision of Czechia 2025” in Tábor

Prof. Ivan Rychlík from the Veterinary Research Institute (VRI) delivered a presentation on 16 October 2025 at the expert forum Vision of Czechia 2025, held in Tábor. The event has long brought together leading figures from Czech science, public administration, innovation, and strategic decision-making.

His presentation, entitled “The Microbiome of Humans and Poultry,” focused on current research trends in veterinary medicine and the importance of advanced laboratory methods in protecting both animal and human health.

In his lecture, Prof. Rychlík emphasized the role of the microbiome in the context of health, disease prevention, and sustainable agricultu-

re. He also highlighted the importance of interdisciplinary collaboration within the One Health approach.

Prof. Rychlík’s presentation received highly positive feedback from the scientific community and underscored the importance of the Veterinary Research Institute as a key research institution contributing to the development of Czech agriculture, veterinary supervision, and applied research in the field of health protection.

His participation in this national forum confirms the long-standing scientific excellence of VRI staff and strengthens the Institute’s visibility within national strategic discussions on the future direction of the Czech Republic.



Reducing Operational Energy Demands: Implementation of EPC Principles at the VRI

The operation of a research institution equipped with specialised instrumentation, experimental animal facilities, controlled-environment spaces, and extensive cooling and freezing capacities is inherently energy-intensive. The same applies to the Veterinary Research Institute (VRI).

With the aim of reducing operating costs while strengthening the Institute’s environmental responsibility, an energy assessment was carried out in 2024. This assessment included proposals for both technical and organizational measures aimed at reducing overall energy consumption.

At the end of 2024, NPO Call No. 8/2024, “Energy Savings in Public Buildings,” was announced under the National Programme Environment, enabling co-financing of these measures from the National Recovery Plan (NPO). The focus of the call fully corresponded to the Institute’s needs—particularly including building modifications to improve thermal performance, modernisation of internal lighting, replacement of heating sources, installation of photovoltaic systems, and the introduction of energy management. The VRI successfully

submitted an application under this call and was awarded a grant covering 60% of the eligible costs.

In addition to subsidy financing, the project implementation is facilitated by the use of the EPC (Energy Performance Contracting) method, i.e., financing energy-saving measures from the future savings achieved in operating costs.

The year 2025 was marked by preparations—from the selection of the general contractor, through the detailed specification of individual measures, to obtaining the necessary permits.

At the end of the year, the implementation itself was launched. Some of the work had to be completed by the end of 2025, while the remaining activities will be finalized by mid-June 2026. The expected savings will therefore soon bring tangible benefits to the Institute’s operations.



Interview with Prof. Jiří Rubeš on the Occasion of His Receiving Honorary Membership in the Czech Medical Association of J. E. Purkyně

On the occasion of the milestone birthday of Prof. MVDr. Jiří Rubeš, CSc., and his conferral of honorary membership in the Czech Medical Association of J. E. Purkyně, a video was produced documenting his remarkable scientific career. Professor Rubeš has been working at the Veterinary Research Institute for over 40 years and is recognized as a leading expert in both animal and human genetics and reproduction.

In the interview, he mentions research into chromosomal translocations in farm animals and the importance of these translocations for reproduction, speaks about collaboration with Prague Zoo and Safari Park Dvůr Králové, as well as projects in Africa, Asia, and South America. He also describes his work in the USA, where he contributed to the development of preimplantation genetic diagnosis, and highlights the significant findings of the Teplice Program regarding the impact of air pollution on male fertility.

The video is a tribute to the scientist whose work has profoundly influenced the field of reproductive biology as well as international scientific collaboration.

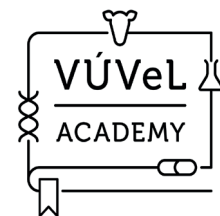


VRI ACADEMY – Educational Seminars Organised by the Veterinary Research Institute

The Veterinary Research Institute (VRI) in Brno organised a total of 11 seminars and workshops in 2025 under the “VRI ACADEMY” programme. Their aim was to communicate new research findings applicable to end-users. The events were funded mainly by either the Rural Development Programme or the Czech Technology Platform for Agriculture. The programme was carried out by VRI researchers as well as experts from cooperating research organisations, universities, and other scientific institutions. Proceedings from most of the events were subsequently prepared and are available on the VRI website, specifically in the VRI ACADEMY and Czech Technology Platform for Agriculture archives. The main coordinator of the VRI ACADEMY educational project is Doc. MVDr. Soňa Šlosárková, Ph.D. From a number of seminars, articles were subsequently prepared and published in professional journals (*Veterinářství*, *Náš chov*, *Zemědělec*, and others), contributing to the further dissemination of

the presented information and supporting its application in agricultural and veterinary practice. The webinar “FMD – A Potential Threat in the Czech Republic: Key Information” received by far the greatest response. In spring 2025, it flexibly addressed the suddenly emerging unfavourable epizootiological situation of this disease in Europe, particularly in Slovakia and Hungary. It provided participants with a summary of key information on the pathogen, modes of transmission, risks of spread, and protection possibilities.

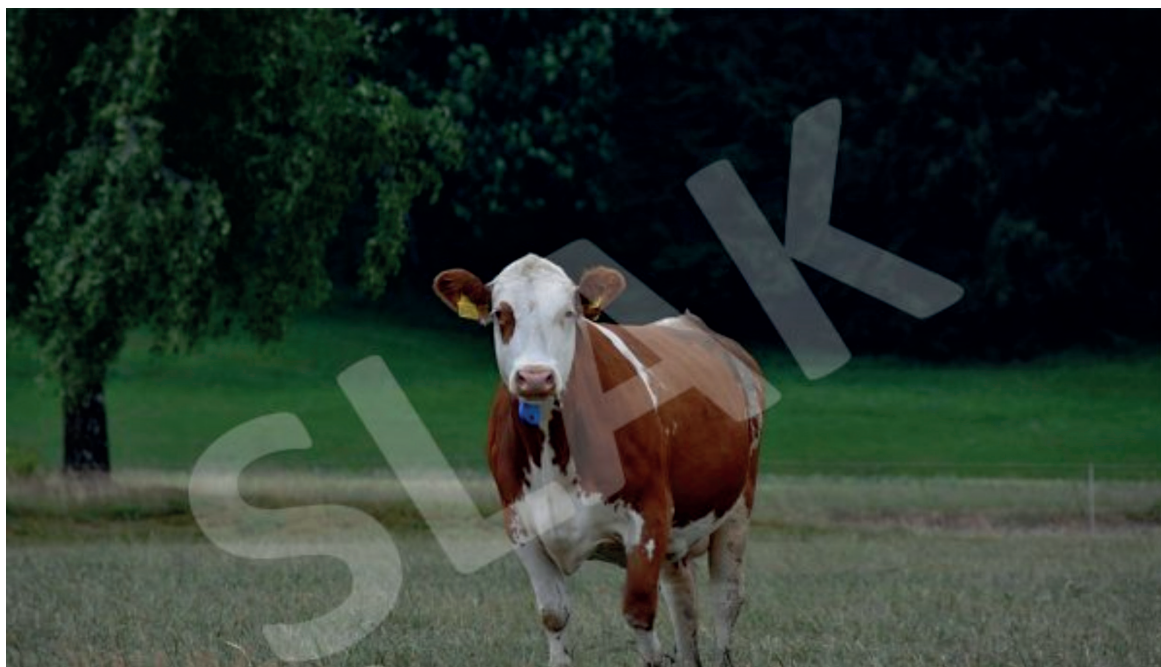
A webinar dedicated to bluetongue disease also recorded very high attendance, responding to the current occurrence of clinical cases of this disease in the Czech Republic.



The Impact of Foot-and-Mouth Disease on Our Work

When an outbreak of Foot-and-mouth disease — a highly contagious viral infection affecting cloven-hoofed animals — was reported in northern Hungary on 6 March 2025 and subsequently, two weeks later, in southwestern Slovakia, the veterinary authorities and livestock sector entered a period of heightened alert and concern over the potential introduction of the disease into the Czech Republic. It was a period of restrictions on animal movement, tightening of biosecurity measures on farms, and increased border controls. This situation also affected the VRI's activities. In addition to the necessary limitation of business trips to Czech farms and to Slovakia and Hungary, it involved stricter control of the movement of people and vehicles within the premises, as well as their chemical disinfection. Some events organised by the Institute's staff were also affected. The most visible consequence was initially the postponement and subsequently the cancellation of the Central European Veterinary Congress, which had been scheduled to take place as part of the AnimalTech exhibition at the Brno Exhibition Centre. In response to the lack of information about this disease among livestock farmers, Doc.

Soňa Šlosárková organised an expert webinar on 26 March 2023 entitled "FMD – An Emerging Threat in the Czech Republic." Its aim was to educate and raise awareness among the professional veterinary and agricultural community about the disease, its causative agent, diagnosis, preparedness, and control measures that would be crucial in the event of an FMD outbreak in the Czech Republic. As this was one of the first events on the topic, interest in the webinar significantly exceeded expectations—the capacity of 200 registered participants was filled very quickly. In response to the high demand, the nearly two-hour webinar was also made available as a recording on the VRI YouTube channel, where it reached more than 1,700 views. Information about the event and the availability of study materials was also displayed more than 44,000 times on the Institute's social media channels, demonstrating its significant reach and practical importance. A link to the webinar was also shared on the website of the Ministry of Agriculture of the Czech Republic.





Outstanding Outcome Awards

VRI Scientists Recognised at the 9th Medica Veterinaria Awards Ceremony

For 9 years, the publishing house Profi Press, s.r.o. has been organizing the recognition of prominent figures in veterinary medicine. The awards are presented for lifetime contributions to veterinary medicine, outstanding contributions to veterinary medicine, as well as publications in the journals *Veterinářství* and *Veterinářní klinika*. The 2024 awards ceremony took place at the National Museum of Agriculture in Prague on 18 March, 2025.

Among the award recipients were employees of the Veterinary Research Institute: For outstanding contribution, Doc. RNDr. Ivan Rychlík, Ph.D. was awarded for a unique blend of nine bacterial strains. After colonizing the intestines of newly hatched chicks, it improves health parameters and natural resistance to pathogenic bacteria, thereby reducing the need for antibiotics in broiler production. The preparation is registered under the name QuoCNA by the Institute for State Control of Veterinary Biologicals and Medicines.

For publishing activity, MVDr. Monika Zouharová, Ph.D., the lead author of the team, was recognized for the paper “Genotyping and survey of virulence factors in *Streptococcus uberis* using whole genome sequencing”. The paper presents the results of the genetic characterization of 140 strains of this bacterial mastitis-causing pathogen, revealing a high level of diversity and a wide range of virulence factors in strains isolated from Czech farms. This poses a challenge for implementing effective measures to control the occurrence of this pathogen.



VRI Received 2025 Awards for Outstanding Achievements in Research and Experimental Development

The Minister of Agriculture's prestigious awards for outstanding achievements in research and experimental development were ceremonially presented during this year's International Agricultural Fair Země živitelka (Bread Basket). Scientists from the Veterinary Research Institute were among those honoured.

The 2025 Award for Young Scientists was conferred upon Natálie Králová from the Department of Infectious Diseases and Preventive Medicine for her publication *Streptococcus suis* strains with novel and previously undescribed capsular loci circulate in Europe.

"The publication describes new genotypes of the bacterium *Streptococcus suis*, a pathogen causing infectious disease in pigs, which contributes to improved diagnostic and preventive approaches," said Natálie Králová regarding the award-winning achievement.

The Award of the Minister of Agriculture for the Best Applied Result of Research and Experimental Development was presented to Kamil Šťastný from the same Department for a methodology, which focuses on detecting residues of anabolic steroids in foods of animal origin and significantly enhances food safety.

At the awards ceremony, the Minister of Agriculture, Marek Výborný, emphasised that these scientific recognitions represent one of the highlights of the Agricultural Fair. According to him, they represent an important bridge between research and industry and demonstrate the practical benefits of the results for agriculture, the food industry, and society as a whole.



Prestigious Award for VRI Representative: Honorary Membership in the Czech Medical Association of J. E. Purkyně

At the 58th Annual Cytogenomics Conference, held on 11–12 September 2025 at the City Conference Centre in Pankrác, Prague, Prof. MVDr. Jiří Rubeš, Ph.D., was awarded Honorary Membership in the Czech Medical Association of J. E. Purkyně (CzMA). The award was granted in recognition of his outstanding contributions to the development of medical science in the fields of genetics and genomics. Honorary Membership in the CzMA is the highest form of recognition awarded by this nationwide professional society. It is bestowed only to personalities who have made significant contributions to the advancement of medical science, healthcare, or the society itself. Its conferment is decided by the presidency based on proposals from the professional societies associated with CzMA.

“I consider this award an extraordinary honour and a recognition of the long-standing work of our team and the entire institute in the field of genetics and genomics. At the same time, I see Honorary Membership as a commitment to continue supporting the development of the specialty,” said Prof. MVDr. Jiří Rubeš, Ph.D., during the ceremonial presentation of the diploma.

CzMA brings together experts from numerous medical specialties and has long supported the advancement of science and education in medicine. The awarding of Honorary Membership is a recognition not only of personal contributions but also strengthens the prestige of Czech genetics and genomics at the international level.



Minister of Health Award for Outstanding Research on Hidden Zoonoses

RNDr. Jiří Salát, Ph.D., and Mgr. Andrea Fořtová, Ph.D., were presented with the Minister of Health Award for an exceptionally successful project of the Czech Health Research Council titled "Hidden zoonoses – uncovering new pathogenic agents from wildlife".

The project was implemented by the Institute of Vertebrate Biology of the Czech Academy of Sciences (principal investigator: Prof. RNDr. Ivo Rudolf, Ph.D.) in collaboration with the Veterinary Research Institute, where RNDr. Jiří Salát, Ph.D., acted as a co-investigator.

The research focused on the detection and characterization of viruses and bacteria with potential risk of transmission to humans, particularly from blood-sucking arthropods, rodents, and bats. The project yielded significant insights in the field of prevention and early identification of emerging infectious diseases.

The ceremonial presentation of the award by the Minister of Health and the Chair of the Czech Health Research Council took place on 9 December 2025 in the representative premises of the Church of St. Anne in Prague.





Projects in 2025

In 2025, the VRI's researchers submitted a total of 73 project proposals under national and international calls for special support. The ratio of submitted to awarded projects reflects both the strong effort to advance research activities and the varying levels of difficulty of each competition.

The implementation of the National Competence Centre project, "National Competence Centre in Veterinary Medicine" continued, actively encompassing 22 partial projects carried out in collaboration with partners from the application sector. These projects have already yielded tangible outcomes of applied research that can be used in practice. (<https://www.vri.cz/en/nacebivet/>)

Through these efforts, the Institute again demonstrates its active involvement in a wide range of research programmes and its strategic focus on both applied and basic research. The outcomes contribute not only to scientific progress but also strengthening collaboration with industry and addressing current challenges in veterinary medicine and related fields.

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Toxicological methodology for comprehensive assessment of groundwater contamination by organic pollutants
Investigator: Mgr. Simona STRAPÁČOVÁ, Ph.D.

The goal of the project is to create a methodology based on selected in vitro toxicological methods, which will serve as a tool for comprehensive evaluation of groundwater contaminated with persistent organic pollutants. The implementation of the methodology into the existing monitoring procedures of contaminated areas as a supplement to conventional chemical analyses will enable to effectively evaluate real risks for the environment, especially the toxicological effect of complex mix-

tures (cocktail effect). The methodology can thus be a valuable tool for public administrations (for the Contaminated Sites Database System). The completion is expected at the end of 2027. The project also includes the organisation of a workshop and publications for the professional public.

Haemostatic wound dressing for wounds created by surgical necrectomy of devitalized tissues
Investigator: MVDr. Edita JEKLOVÁ, Ph.D.

The aim of the project is to develop, prepare, and test on animal models haemostatic dressings applied after surgical necrectomy of devitalized tissue in a form of super-fine fibre membranes. The fibrous membranes "HemoCover" will stop the bleeding of wounds created

after necrectomy and, due to a presence additives, will also prevent the development of possible infection of the wounds created.

Integration of data from milking parlours and sensors for milk recording and benchmarking of dairy herds

Investigator: Doc. MVDr. Soňa ŠLOSÁRKOVÁ, Ph.D.

The goal of the project is the integration of data from conventional milking parlours and sensors used in dairy farms in the CR and the creation of tools for automated data flows from farms into a central database for innovation of the milk recording (MR) and benchmarking of dairy farms. The sub-goals are protocols for sharing data from milking parlours and sensors for monitoring the dairy cows behaviour and the stable environment, creation of working databases and algorithms for the

obtained data evaluation for the refinement of MR system and development of the sustainability index and other parameters for benchmarking farms and predicting the development of the performance, health status and welfare of dairy cows and sustainability of dairy production.

Development of a sustainable environment for veterinary research at VRI

Investigator: Ing. Ildikó CSÖLLE PUTZOVÁ, Ph.D., MBA

The aim of the project is to strengthen strategic management of science and research at Veterinary Research Institute, support the implementation of the HRS4R strategy through activities in accordance with the action plan for the upcoming period 2025+, and develop, update, and implement strategies for human resources management, international and intersectoral cooperation, communication and popularization

of R&D, and the strategy for access to open science and illegitimate influence. Complementary development of the capacities, knowledge, and skills of the Institute's staff in the aforementioned areas.

Support for restarting after a career break and development of a sustainable career at VRI: VRI Restarts

Investigator: Ing. Ildikó CSÖLLE PUTZOVÁ, Ph.D., MBA

The aim of this project is to support v high-potential researchers in balancing their private and professional lives and professional development so that career breaks due to maternity or parental leave, long-term illness, or caring for a child or close relative do not lead to the

termination or significant slowdown of their professional careers. Support will be provided through pilot testing of grant schemes focused on these interventions at VRI and the implementation of restart grants.

Autoantibodies as critical determinants of tick-borne encephalitis severity
Investigator: prof. RNDr. Daniel RŮŽEK, Ph.D.

Tick-borne encephalitis (TBE) is a serious neuroinfection caused by the tick-borne encephalitis virus (TBEV), prevalent in Europe and Northeast Asia, with over 13,000 clinical cases reported annually, including numerous deaths. Despite its medical significance, no specific treatment exists for TBE, highlighting the urgent need for effective therapies. The variability in disease severity among individuals is influenced by genetic and immunological factors, with severe cases often linked to immunodeficiencies. Our preliminary data indicate that approximately 10% of severe TBE cases involve autoantibodies against type I interferons (IFN-I), suggesting a critical role for these autoantibodies in disease severity. The project aims to investigate the role of autoantibodies in TBE. We will evaluate the impact of autoantibodies against type I IFNs on TBE severity by analysing a larger cohort of patients and conducting

biological assays. We will explore whether these autoantibodies have an inborn genetic background by examining single nucleotide polymorphisms (SNPs) associated with autoantibody production. Additionally, we will examine the role of autoantibodies against various cytokines and chemokines in TBE severity and whether they are inborn or induced during the infection. Finally, we will investigate whether active TBEV infection induces autoantibodies against central nervous system (CNS) components and their potential impact on the clinical course and post-encephalitic complications. This research will provide valuable insights into the pathogenesis of TBE, identifying novel biomarkers for severe TBE, and pave the way for targeted immunomodulatory therapies. Our findings could significantly improve patient outcomes and contribute to the development of rational therapeutic strategies against TBE.

Formulation of atropine into modern noninvasive delivery systems
Investigator: PharmDr. Josef MAŠEK, Ph.D.

Organophosphorus (OP) pesticides as well as the nerve agents (NA) like tabun or sarin represent a permanent threat to the population. Poisoning by OP pesticides is responsible for at least 100,000 fatal poisonings worldwide every year and nerve agents are still misused despite their prohibition by the Chemical Weapons Convention. Current antidotal therapy consists of a fast administration of oxime reactivator (causal therapy), which is supplemented by parasympatholytics (e.g., atropine) and anticonvulsants (e.g., diazepam). This project aims to develop and characterize novel delivery systems for non-invasive intranasal application of atropine to be used in the civilian and military sectors. Deve-

loped formulations will be described using advanced physico-chemical and analytical methods and the successful formulation will be selected based on ex vivo permeation models. The core of the proof-of-concept study lies in the animal experiment on the pig model. A comparative bioavailability study, distribution, and PK/PD analysis will be performed to evaluate the pharmacokinetics of selected formulations for topical delivery. In addition, the efficacy after real poisoning of the experimental animal by the OP agent will be validated to evaluate its practical use.

Identification of patients with sleep-disordered breathing with increased cardiovascular risk in chronic systemic inflammation
Investigator: Mgr. Nicol STRAKOVÁ, Ph.D.

Personalized medicine aims to identify specific biomarkers, understand molecular mechanisms, and develop targeted therapies for patients with OSA. The objective of this project proposal is therefore to provide a detailed characterization of patients with OSA in order to identify therapeutic targets. This study will compare selected markers (see Objectives 1–4) between healthy controls and patients before and after CPAP

treatment. Project objectives: 1) To conduct a comprehensive sleep analysis in patients, 2) To determine the levels of regulatory molecules and markers of chronic inflammation, 3) To analyse exosomes from patients' blood and identify specific molecular markers, 4) To carry out a comprehensive cluster analysis of the acquired data.

Preclinical Investigation of the Therapeutic Potential of Novel Platinum(II) Complexes in Multiple Myeloma
Investigator: Mgr. Renata HÉŽOVÁ, Ph.D.

Multiple myeloma (MM) is a malignant disease of hematopoietic tissue, predominantly affecting the bone marrow. Clinical treatment regimens (e.g. based on proteasome inhibitors, immunomodulatory agents or monoclonal antibodies) combine different classes of drugs, but most patients develop resistance to these drugs and most MM patients relapse. Treatment of patients with relapsed or refractory MM also uses combination chemotherapy regimens that are associated with significant toxicity. Thus, the development of appropriate therapy against MM is a current challenge in the field of medicinal chemistry. In this multidisciplinary project, the anti-myeloma potential of diiodidoplatinum(II) complexes will be studied in several MM cell lines and healthy bone marrow fibroblasts (following very promising results of a proof-of-concept study). Subsequent pro- and retrospective studies will be performed on a sorted population of plasma cells isolated from bone marrow aspirates of patients at different stages of MM. The mechanism of action will be

studied by appropriate experiments (e.g., expression of pro- and anti-apoptotic genes will be determined by RT-PCR or Western blot analysis) in both single cultured MM cells and in their co-cultures with fibroblasts mimicking the bone marrow tumour microenvironment. The activity of the best-performing compounds with significant anti-myeloma activity and sufficient selectivity towards MM cells (compared to healthy fibroblasts) will be validated in a preclinical mouse model of MM. The project will involve institutes that have long been successfully focusing on the research of new biologically active compounds and research on MM from Palacký University Olomouc and Veterinary Research Institute, Brno. The project will contribute to the determination of the therapeutic potential of diiodidoplatinum(II) complexes for the treatment of MM and to the elucidation of their mechanism of action, both in vitro and in vivo.

Development and optimisation of a long-acting injectable drug formulation for modern cardiologic therapy

Investigator: PharmDr. Josef MAŠEK, Ph.D.



The proposed project focuses on the research and development of a unique depot injectable formulation of an active substance used for the treatment of heart failure. The designed formulation will enable a more effective therapeutic approach in veterinary medicine, with potential

applications in human medicine. The outcome of the project will be a prototype of a depot drug formulation, as well as a validated manufacturing technology for the active pharmaceutical ingredient (API). The intellectual property is protected by a utility model.

PROGRAM 9 F.i. Professional Consultations

Investigator at the VRI: Doc. MVDr. Soňa ŠLOSÁRKOVÁ, Ph.D.

In 2025, the VRI provided consultancy services for agricultural production under the 9.F.i. Support for Agriculture Consulting, Expert Consultations, financially supported by the Ministry of Agriculture of the Czech Republic. The VRI staff reported 291,67 consultation hours for the entire year 2025 under this project (as revised by the Ministry of Agriculture of the Czech Republic), predominantly for dairy cattle breeders,

and to a lesser extent for pig, poultry, sheep, and goat breeders. Accordingly, the VRI was paid a total sum of CZK 280,003.20 in two phases (July and December 2025). After deducting the funds allocated to the Institute's overhead from the received subsidy, the respective staff members were paid bonuses in their salary according to their reported consulting hours.



Výzkumné
prostředí



DEVELOPMENT OF A SUSTAINABLE ENVIRONMENT FOR VETERINARY RESEARCH AT VRI

ABOUT THE PROJECT

The aim of the project is to strengthen the strategic management of science and research at VRI, support the implementation of the HRS4R strategy through activities carried out in accordance with the action plan for the upcoming 2025+ period, and develop, update, and implement strategies for human resources management, international and intersectoral cooperation, communication and popularisation of R&D, strategies for open science and for the prevention of illegitimate influence. In addition, the project focuses on developing the capacities, knowledge, and skills of the Institute's staff in these areas.

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NÁVRATY
VÚVeL



SUPPORT FOR RESTARTING AFTER A CAREER BREAK AND DEVELOPMENT OF A SUSTAINABLE CAREER AT VRI: VRI RESTARTS

ABOUT THE PROJECT

The aim of this project is to support high-potential researchers in balancing their private and professional lives and professional development so that career breaks due to maternity or parental leave, long-term illness, or caring for a child or close relative do not lead to the termination or significant slowdown of their professional careers. Support will be provided through pilot testing of grant schemes focused on these interventions at VRI and the implementation of restart grants.

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NATIONAL CENTRE FOR BIOTECHNOLOGY IN VETERINARY MEDICINE

ABOUT THE PROJECT

The National Centre for Biotechnology in Veterinary Medicine (NaCeBiVet) is an interdisciplinary virtual research platform primarily aimed at addressing current challenges in sustainable animal production, food safety, and animal welfare. The project is implemented through coordinated collaboration between seven research institutions and nineteen industry partners, ensuring a direct link between research and the practical application of results in agriculture, food production, and veterinary medicine.

NaCeBiVet is structured into four main research pillars: biotechnology in prevention and therapy, diagnostics, nutrition, and reproduction. A unifying element across all activities is the emphasis on genetic and reproductive aspects, which form a key cross-cutting topic in the centre's research strategy. The project also focuses on innovations in reproductive biotechnology, diagnostics of genetic abnormalities, and monitoring of molecular markers related to fertility, disease resistance, and metabolic parameters.

NaCeBiVet thus brings modern solutions to the field of animal biotechnology, reflecting the demand for reduced antibiotic use, biodiversity preservation, improved animal living conditions, and the implementation of circular economy principles. The resulting innovations have the potential to strengthen the competitiveness of participating enterprises and to support the long-term sustainable development of animal production and veterinary care.

**PARTNERS: CONSORTIUM
OF 26 PARTNERS**

The project is funded by the Technology Agency of the Czech Republic.

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T A
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BONAGRO
akciová společnost



MicroCen Trans

SEVARON

MrázAgro



tekro



yoggies

DYNTEC

1. zemědělská as Chorušice



MIKROP
mšerndíe-vitamínová výživa zvířat



VÝZKUMNÝ ÚSTAV
VČELAŘSKÝ

Cheveki-Grus

MENDELU

ADDICOO
Additive & Co-operates

**VYSOKÉ UČENÍ
TECHNICKÉ
V BRNĚ**

ibt

**BioVendor
Group**

**ACE
AGRO**



LabMedia

bioveta

VÚŽV



International Cooperation

VRI maintained a high standard of international scientific research cooperation in 2025, built on an extensive network of contacts and partnerships between its researchers and leading foreign institutions. International cooperation took place through contractual research with foreign companies as well as through collaborative research with universities and research organisations within European and bilateral programmes. These activities were supported by tangible outcomes in the form of joint projects, scientific publications, patents, and signed agreements.

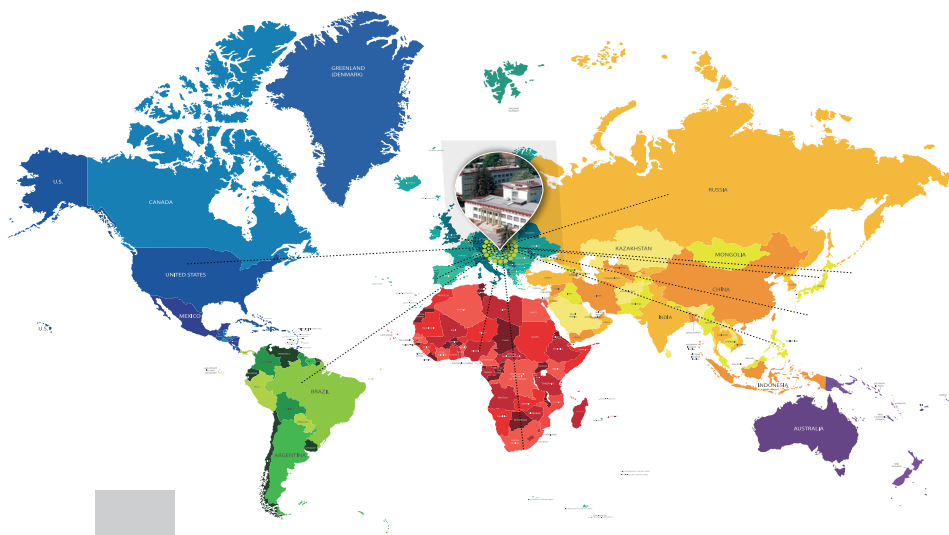
In 2025, the cooperation was further expanded through the conclusion of new memoranda, including a Memorandum of Understanding on Research and Scientific Cooperation with the Laboratory of Food Safety and Hygiene, Institute of Veterinary Medicine, Mongolia, as well as a memorandum on cooperation with the Państwowy Instytut Weterynaryjny – Państwowy Instytut Badawczy (Polish National Veterinary Research Institute, PIWet-PIB).

The Institute continued its participation in three international projects under the HORIZON Europe programme and actively prepared proposals for new calls within the work programme for 2025–2027. VRI also continued its active involvement in the European platform Circular Bio-based Europe (CBE JU), following up on its previous participation in the Bio-Based Industries (BBI) initiative, with the aim of supporting research and development in the bioeconomy.

International mobility remains an important pillar of cooperation – in 2025, several work and study stays of our researchers took place at partner institutions both within and outside the EU, as well as the hosting of foreign experts at VRI. For example, the Institute was visited by a group of seven Swedish veterinarians specializing in dairy farming. On 28 April 2025, the Institute also welcomed experts in performance recording and cattle breeding from Finland and Estonia.

As part of its professional activities, a lecture by Prof. Heiner Niemann (Hannover Medical School) entitled “Porcine organs for human organ transplantation: is clinical application around the corner?” was organised.

The active participation of our scientists in international professional committees and consortia contributes to raising VRI’s profile on the European research scene and creates conditions for the further growth of excellent collaboration.



A Visit from Finland and Estonia

On Monday, 28 April, 2025, our Institute welcomed a delegation of experts in performance testing and breeding—primarily of dairy cattle—from Finland and Estonia. They were accompanied by Doc. Kučera and Ing. Dřížhalová of the Czech-Moravian Breeders' Corporation, Inc. (CMBC). The visitors showed interest in the work of our Institute and cattle farming in the Czech Republic. The group was originally formed of representatives from all the Nordic countries, with the purpose of attending the national AnimalTech exhibition in Brno. Although the exhibition was ultimately cancelled due to concerns over the potential spread of foot-and-mouth disease (FMD) and most countries withdrew their participation, the delegation from Estonia and Finland chose to proceed with their visit. Representing Estonia were Kaivo Ilves, Aire Pentjärv, Saive Kase, and Merle Lillik from Eesti Põllumajandusloomade Jõudluskontrolli AS (Estonian Livestock Performance Recording Ltd.), all of whom are involved in performance recording and breeding activities. Finland was represented by Kirsi Leppikorpi and Teija Hellberg from the ProAgria association, which provides performance recording services in Finland. The Institute and its areas of focus were personally presented by the director, Dr. Martin Faldyna. He also provided an overview of the funding sources available within the Czech system of science and applied research. In light of the current FMD situation in neighbouring Slovakia and also in Hungary, Dr. Bernardy delivered a presentation on the situation in Europe and the preventive measures adopted by the Czech Republic. Dr. Fleischer gave an expert presentation on the high standard of Czech cattle breeding, further extending the visi-

tors' understanding of the Institute's cooperation with CMBC, other organizations, and breeders in this agricultural sector. He also spoke, among other things, about the web applications developed at the Institute that are used by breeders, along with ongoing projects related to cattle health and mastitis control. Given the limited time available, an overview of two of our Institute's laboratories and the research groups specializing in mastitis was delivered through a presentation prepared by Dr. Zouharová. The interactive and well-rounded discussion was significantly deepened by insights from Dr. Borkovec and Dr. Fichtelová, making the three-hour professional programme pass all too quickly for everyone involved.



**inno
protein**

INNOPROTEIN: NEW SUSTAINABLE PROTEINS FOR FOOD, FEED AND NON-FOOD BIO-BASED APPLICATIONS

ABOUT THE PROJECT

With the global population expected to reach 10 billion in 2050, the urgency of sustainably producing high-quality protein is evident. The protein deficit in the EU, with 70% of protein crops and 90% of soybeans being imported, highlights the growing need for fresh organic protein sources across various markets.

The InnoProtein project addresses this challenge by developing new products for food, feed, and other applications. By utilizing overlooked protein sources such as microalgae, fungi, bacteria, and insects, and combining them with advanced extraction techniques, we are working toward solutions that reduce protein scarcity in the EU while minimizing environmental impact.

**PARTNERS: CONSORTIUM
OF 15 PARTNERS**

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NEOGIANT: THE POWER OF GRAPE EXTRACTS: ANTIMICROBIAL AND ANTIOXIDANT PROPERTIES TO PREVENT THE USE OF ANTIBIOTICS IN FARMED ANIMALS

ABOUT THE PROJECT

The main objective of the NeoGiANT project is to develop and validate an innovative natural formulation from grape extracts with antimicrobial and antioxidant properties, which will be used as a nutritional supplement for farm animals and farmed fish. The aim is to reduce the dependence on the use of antibiotics in animal/aquaculture production. This strategy should make a significant contribution to the fight against antimicrobial resistance (AMR) originating in animal production on farms by providing an economically viable alternative to the routine use of antibiotics.

**PARTNERS: CONSORTIUM
OF 20 PARTNERS**

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BIOREFINERIES FOR THE VALORISATION OF MACROALGAL RESIDUAL BIOMASS AND LEGUME PROCESSING BY-PRODUCTS TO OBTAIN NEW PROTEIN VALUE CHAINS FOR HIGH-VALUE FOOD AND FEED APPLICATIONS (ALEHOOP)

ABOUT THE PROJECT

Obtaining cheap dietary proteins from biomass, algae and by-products in the production of legumes using biorefineries. This transforms biomass into alternative forms of proteins for a variety of uses, from animal feeds and food supplements to cutting-edge applications in nutritional awareness and health control.

**PARTNERS: CONSORTIUM
OF 16 PARTNERS**

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Swedish Veterinarians Visited VRI: Focus on Foot-and-Mouth Disease and Mastitis

Brno, 12 May 2025 – The Veterinary Research Institute welcomed a professional delegation of seven Swedish veterinarians specializing in dairy cattle farming, who visited the Czech Republic through a collaboration with Bioveta, a.s. They were accompanied by MVDr. Ronen Hoikhman, Ph.D., Veterinary technical and product manager, Equine and livestock. The purpose of the visit to our Institute was to gain an overview of recent scientific and research achievements and to exchange professional insights on current bovine infectious diseases and mastitis.

The programme was opened by Ing. Ildikó Csölle Putzová, Ph.D., MBA, who presented the activities and mission of VRI. This was followed by presentations from MVDr. Jan Bernardy, Ph.D. of VRI and MVDr. Petr Kučinský, CSc. of the State Veterinary Administration, who delivered up-to-date information on foot-and-mouth disease in the Czech Republic and neighbouring countries. The lecture initiated a discussion on the preparedness of various countries and their experiences with the crisis management of infectious diseases.

The meeting then proceeded with a focus on mastitis. MVDr. Petr Fleischer, Ph.D. reported on the occurrence of the main causative

agents of the disease in the Czech Republic, including data on prevalence on Czech farms. He encouraged participants to gain preliminary insight into the topic through a poster and a video recording from the Buiatrics Congress.

The subsequent presentations focused on:

- Treatment of mastitis – Libor Borkovec,
- Diagnosis of mastitis pathogens – Monika Zouharová, Ph.D.,
- Preventive measures – again Petr Fleischer, Ph.D.

The participants appreciated the clarity of the presentation and the direct comparison with practices in Sweden. The discussion also covered topics such as the use of vaccines, the development of new diagnostic methods, and preventive measures within dairy herd management.

The entire meeting took place in a friendly atmosphere, and we believe it strengthened both professional and academic ties between Czech and Swedish veterinarians. The event took place as part of efforts to support international collaboration in the research fields of the NaCeBiVet Competence Centre (National Centre for Biotechnology in Veterinary Medicine).



VRI Hosted Mongolian Experts as Part of a Veterinary Development Project

From 13 to 17 July 2025, the Veterinary Research Institute welcomed four experts from Mongolia as part of the Ministry of Industry and Trade project “Supporting Mongolia’s integration into the global trading system,” which is implemented under the Aid for Trade programme. The proposer and main international partner of the project is the Mongolian Institute of Veterinary Medicine.

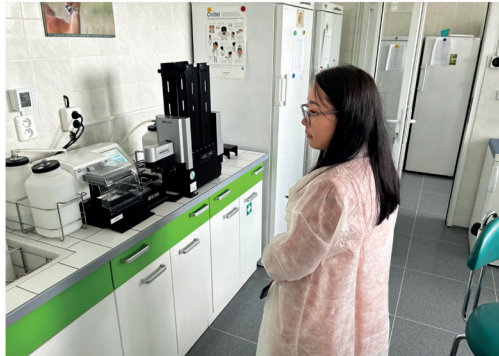
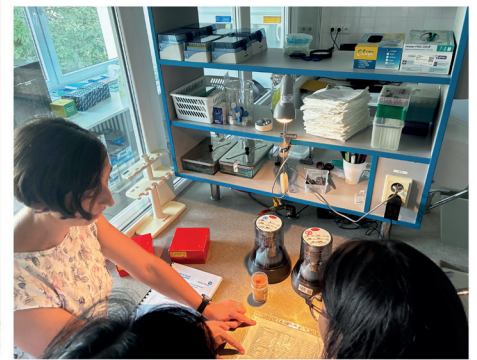
The aim of the project is to contribute to strengthening Mongolia’s veterinary infrastructure and increasing its export capacity, especially in the field of animal production. The main objective is to analyse the current situation and define specific needs in collaboration with Czech institutions. “We aim to develop rapid diagnostic methods for control of infectious diseases in meat, particularly from sheep and goats, that are transmissible to humans, and to meet international and legislative requirements for meat export,” said Prof. Badgar Battsetseg, Director of the Institute. Effective diagnostics will contribute to eliminating barriers to the export of meat and meat products from Mongolia to Middle Eastern markets. “Mongolia currently exports mainly lamb meat and mutton on an occasional basis to Qatar, Kuwait, and other countries. Our goal is to gain additional long-term partners from the Gulf region and expand our exports,” said Dr. Basan Batsukh of the Mongolian State Veterinary Administration.

The primary goal of the visit, as the initial phase of the project, was to introduce representatives of the Mongolian State Veterinary Administration and the Veterinary Research Institute in Ulaanbaatar to the Czech system of veterinary supervision over the safety of food of animal origin. The Czech Republic, through VRI, is sharing valuable know-how with Mongolia and providing technological support in the development of diagnostic tools. These tools represent a key element in establishing an effective animal health control system. They support the eradication of communicable diseases from affected areas and enable compliance with export certification requirements for meat on international markets.

VRI’s involvement in the project includes applying its expertise in the development of diagnostic kits that enhance the efficiency of detecting specific pathogens. One of the project outcomes will be a prototype diagnostic kit designed for a selected pathogen, contributing to more effective control measures. Another important benefit is the establishment of collaboration in the field of antimicrobial resistance — its detection, monitoring of occurrence, and joint efforts to find solutions. This issue is currently one of the key challenges for both human and veterinary medicine and has a direct impact on public health as well as international trade.

VRI representatives prepared a varied specialist programme that included lectures, practical demonstrations, visits to farms and slaughterhouses, and individual consultations with researchers. “During the stay of the Mongolian experts, we aimed to present our health control system of animals for meat production in its full scope — to familiarize them with Czech veterinary surveillance, animal health control methodologies, vaccination strategies, and the development of modern diagnostic tools,” said Jan Bernardy, the project’s expert supervisor and a member of the VRI organizing team.

We extend our sincere thanks to the State Veterinary Administration for the South Moravian Region; Steinhauser, s.r.o.; ZD Skály, agricultural cooperative in Benešov u Boskovic; the Central Veterinary Administration of the State Veterinary Administration, in Prague; and the State Veterinary Institute in Jihlava for their helpfulness, professional cooperation, and active assistance in the execution of the visit programme. The involvement of these partners from practice significantly contributed to the professional quality and smooth running of the entire event,” added Jan Bernardy. The visit represented an important step towards strengthening international cooperation in veterinary science, food safety, and supporting export. The visit was preceded by intensive project preparation, led by Ildikó Csölle Putzová: “The involvement of the entire team was essential — from booking flights and arranging accommodation to organizing visits to farms and other facilities, especially in light of concerns following the recent FMD threat. The project also opens up new opportunities for long-term partnership between the Czech Republic and Mongolia in capacity developing and enhancing the quality of food inspection. “If this approach proves effective in classifying certain regions of Mongolia—such as the central and western aimags or the capital city, Ulaanbaatar—as safe for export, it would not only facilitate international trade, but also contribute to improved animal health and Mongolia’s overall public health situation,” said Arnošt Marks, a team member and expert on the Mongolian economy and pastoralism. The VRI hereby confirms its position as a key partner in international expert projects focused on animal health and the export potential of partner countries.



AID FOR TRADE PROGRAMME – PROJECTS SUPPORTING TRADE IN PARTNER DEVELOPING COUNTRIES

ABOUT THE PROJECT

The project will contribute to the renewal and development of national industry with the aim of ensuring economic growth and supporting exports, in line with the national POVERTY REDUCTION STRATEGY (PRSP). The main objective will be, in cooperation with the Czech partners, to analyse and define the needs and create conditions for overcoming legislative barriers to cooperation with the ME (Gulf region) in the area of export opportunities for meat and meat products. The project will include knowledge transfer and the supply of detection kits to small laboratories in Mongolia, while certification according to the quality control standards of Mongolian laboratories could be utilized by potential manufacturers in the Czech Republic. The proposer and main partner of the project is the Mongolian Institute of Veterinary Medicine, as well as meat and meat product producers and exporters.

Implementing organisation: Veterinary Research Institute
Applicant: Institute of Veterinary Medicine, Ulaanbaatar, Mongolia

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Visit from PIWet Puławy at the VRI

On 7 August, 2025, the representatives of the Polish National Veterinary Research Institute (Państwowy Instytut Weterynaryjny – Państwowy Instytut Badawczy; PIWet-PIB), Prof. Stanisław Winiarczyk, Director of the Institute, and Prof. Mirosław Polak, his Deputy, visited the Veterinary Research Institute. The PIWet-PIB, which is located on the outskirts of the city of Puławy in the Lublin Voivodeship, deals with topics similar to the VRI. Its staff has been working on the issues of viral, bacterial and parasitic animal diseases and chemical and microbiological safety for 80 years. Therefore, the PIWet representatives listened with interest to the presentations of representatives of all four VRI departments- Dr. Matiašovic, Dr. Fichtelová, Dr. Crhánová, Mgr. Černoorská and Dr. Mašek - which centred mainly on the current activities of individual teams and projects being implemented. Prof. Polak then presented PIWet's current areas of focus, including the functioning of national reference laboratories. He also presented the developed infrastructure, including new conventional experimental animal facilities. Doc. Faldyna introduced the Polish collea-

gues to some aspects of VRI's activities, in particular the established system of good laboratory practice. A large part of the discussion was devoted to cooperation with companies and the application sphere, which takes place in the form of collaborative research or is financed from targeted support projects, in particular the project of the National Centre for Biotechnology in Veterinary Medicine. The last part of the programme was a visit to the accredited experimental animal facilities. In addition to Dr. Bernardy, Dr. Jeklová and Mrs. Sobotková also participated in the discussion on the use of in vivo experiments in the development and testing of biological preparations and feed supplements. The visit offered an opportunity for a better mutual understanding of the two institutions, which share the same mission – supporting animal production through research



VRI at the Ceremonial Opening of New PIWet-PIB Puławy Research Facilities

Puławy, 26 November 2025 – A ceremonial opening was held in Puławy, Poland, for a new ABSL-3 biosafety level experimental animal facility and a state-of-the-art BSL-3+ biosafety laboratory, both established as part of the Polish National Veterinary Research Institute, PIWet-PIB (Państwowy Instytut Weterynaryjny – Państwowy Instytut Badawczy). The event marked a significant milestone in the development of cutting-edge biomedical infrastructure in the region, the quality of which now ranks PIWet-PIB among the most advanced research centres in Central Europe.

VRI was represented at the event by a professional delegation, whose presence highlighted the well-established and steady cooperation between the Czech and Polish research communities. The atmosphere at the ceremonial opening was very positive, reflecting a shared commitment to strengthening capabilities for advanced research on high-risk pathogens.

The newly established BSL-3+ and ABSL-3 facilities significantly expand PIWet-PIB's capabilities in the diagnosis and reference testing of serious viral and bacterial diseases. An investment of approximately PLN 60 million enabled the establishment of facilities meeting

the highest biosafety standards and provides a platform for advanced research on diseases transmissible between humans and animals, in line with the One Health approach.

During the visit, the VRI delegation held discussions with PIWet-PIB representatives on further developing cooperation, particularly in the areas of joint research projects, sharing laboratory expertise and methodologies, expanding collaboration on reference testing, exchanging professional know-how, and accessing specialized laboratories on both sides. This effort was also confirmed by the signing of a joint memorandum.

Participation in this event represents an important step for VRI in strengthening international connections, expanding access to state-of-the-art scientific infrastructure, and enhancing professional collaboration in virology, microbiology, and the study of zoonotic diseases. Ongoing dialogue with PIWet-PIB may in the coming period lead to the implementation of joint studies, sharing of laboratory capacities, professional internships, and the preparation of joint European projects.





Transfer of Results to End-users

The system of commercialisation and knowledge transfer at VRI is ensured through the Centre for Technology Transfer and Project Support (CTT-PP), whose main mission is the effective application of research results in practice and their benefit for both society and the Institute.

The emphasis is not placed solely on economic effect, but also on the environmental and social impact of the undertaken activities. The Institute has been systematically developing its capacities in the field of technology transfer and actively seeks new opportunities for the application of research results.

A key role is played by applied research, the development of strategic partnerships, and the strengthening of cooperation with both the academic and application sectors. Among the key activities are the identification of results with application potential, their protection through intellectual property rights, management of the patent portfolio, legal and contractual support, licensing policy, and targeted promotion of results, including expert consultations.

The year 2025 was particularly significant in terms of technology transfer, mainly due to experimental research projects that resulted in a number of new applied outcomes with potential for practical use. Specifically, these included 18 functional samples, 3 prototypes, 3 utility models, 2 patents, 3 verified technologies, and 2 certified methodologies, a detailed list of which is provided in the following section of this Yearbook.

From the perspective of intellectual property protection, the Institute maintains an extensive and systematically developed portfolio of results, which represents an important foundation for the further development of applied research and its practical use. As of 31 December 2025, the Institute holds a total of 16 valid national and international patents and 45 utility models. Over the course of the year, 2 Czech patents and 3 utility models were newly granted, confirming the continuous development of innovation activities and intellectual property protection.

An important step in the field of international cooperation was the filing of a joint European patent application in collaboration with Mendel University in Brno and international partners. The application entitled “Combination for formation of lipidic nanoparticles for reversible con-

jugation with PEG surface polymers, lipidic nanoparticles, and their hybrid biocompatible carriers with extracellular nanovesicles, methods of their preparation and use thereof” was submitted on 17 December 2025 under the number EP 25224214.4.

In 2025, the Institute continued to focus on strengthening its links with the application sphere, particularly in the fields of agriculture and veterinary medicine. New projects oriented towards applied research and expert activities were developed with the aim of establishing stable and long-term sustainable partnerships. A key platform for these activities remains the National Centre for Biotechnology in Veterinary Medicine (NaCeBiVet), which supports the effective transfer of research results into practice.

As part of the activities of the NaCeBiVet centre, a professional workshop reflecting current challenges in the field of fish nutrition was held in 2025, entitled “New insights into fish nutrition – Current trends in the use of additives suitable for fish.” The workshop took place on 16 September 2025 at Mendel University in Brno. The event focused on innovative approaches to the nutrition of aquaculture species and on possibilities for improving fish health without the use of antibiotics. In the area of practical application of research results, there was also a significant development – the QuoCNA product was newly registered in Slovakia as a veterinary medicinal product, thereby expanding the possibilities for its use in foreign markets.

The transfer of knowledge into practice is further supported by educational activities carried out within the VRI Academy project, which is organised in cooperation with the Ministry of Agriculture of the Czech Republic, professional organisations, and other partners.

In the area of contract-based cooperation, the Institute built on the previous period in 2025 and continued to develop partnerships with both domestic and international entities. The cooperation was carried out mainly through licensing agreements, contract research, and commissioned research, while the overall volume of these activities remained stable.

Certified methodologies

Title of the result	Authors
<i>In vitro</i> determination of the antibacterial efficacy of herbal extracts used in the treatment of mastitis in dairy cattle herds	Nedbalcová Kateřina; Matiašková Katarína; Zouharová Monika
Methodology for assessing acrosome integrity of bull sperm	Vozdová Miluše; Kopecká Věra
Methodology for assessing plasma membrane integrity of bull sperm	Vozdová Miluše; Kopecká Věra

Utility model

Title of the result	Authors
Systém 3D kultivace bovinních dendritických buněk pomocí polykaprolaktonových nanovláken	Sláma Petr; Pavlík Aleš; Zouharová Monika
Probiotic mixture for weaned piglets and a preparation and feed containing it	Matiašovicová Jitka; Šebková Alena; Rychlík Ivan
Medicated granules and feed mixture for freshwater fish	Pojezdal Ľubomír; Matějčíková Kateřina; Jeřábek Martin; Mikulková Zuzana

Patent

Title of the result	Authors
Osmium coordination compounds to be used in the treatment of pulmonary cancer	Nemec, Ivan; Štarha, Pavel; Hošek, Jan
A bacterial preparation for the treatment of hatchery environment	Rychlík, Ivan; Faldynová, Marcela; Karasová, Daniela; Šebková, Alena; Příkrylová, Hana; Havlíčková, Hana

Verified technology

Title of the result	Authors
Controlled release of antiparasitic drugs in freshwater fish	Pojezdal Ľubomír; Matějčíková Kateřina; Kovářová Radka; Picka Jan; Mikulková Zuzana; Jeřábek Martin
Enzyme-linked immunosorbent assay (ELISA) kit for serological differentiation of vaccinated pigs (with a Salmonella vaccine) and pigs after natural infection with non-typhoidal Salmonella serovars (DIVA Salmo ELISA)	Gebauer Jan; Králová Natálie; Tesařík Radek; Hlavová Karolína; Matiašovic Ján; Stoklásková Iva; Vašek Antonín; Pospíšil Jaromír
Detection system for the identification of newly described <i>Streptococcus suis</i> serotypes	Zouharová Monika; Matiašovic Ján; Nedbalcová Kateřina; Králová Natálie; Czanderlová Linda

Prototypes, functional patterns

Title of the result	Authors
Microemulsion delivery system for anthelmintics for transdermal administration in sheep	Novobilský Adam; Kotouček Jan; Pařenicová Martina; Mašek Josef; Fojtíková Martina; Mašková Eliška; Ondruš Jaroslav; Zechmeisterová Kristína; Ciganek Miroslav; Kocifajová Anna; Várady Marián
Technical solution: Method for preparing nucleic acid of suitable quality for determining the presence and quantity of viruses in insect rearing facilities	Prodělalová Jana
Technical solution: Method for preparing nucleic acid of suitable quality for determining the presence and quantity of entomopathogenic bacteria	Prodělalová Jana; Straková Petra
Complete feed mixture for the final phase of pig fattening using white lupin meal as a source of high-quality protein replacing soy protein	Straková Petra; Levá Lenka; Venusová Jana; Picka Jan; Kovářová Radka; Faldyna Martin; Jeřábek Martin
A formulation with high bioavailability of the active substance for an oral veterinary preparation	Mašek Josef; Mašková Eliška; Šiška Jozef
Liposomal formulation of recombinant bovine FSH	Kotouček Jan; Kadlecová Zuzana; Vojtová Lucy; Gebauer Jan; Héžová Renata; Vráblíková Alena; Mašek Josef; Anger Martin; Čech Svatopluk
Functional multilayer cellular skin substitute	Pavlišáková Veronika; Izsák Dávid; Vojtová Lucy; Lipový Břetislav; Koutná Irena; Smolnická Anna; Jeklová Edita; Faldyna Martin
Method for verifying the antimicrobial effect of bedding material	Jeklová Edita; Straková Petra; Levá Lenka
Method for verifying the colonization of bedding material with probiotics	Jeklová Edita; Straková Petra; Levá Lenka
Drug-containing microgranules for freshwater fish	Pojezdal Ľubomír; Matějčková Kateřina; Motlová Jitka; Kovářová Radka; Picka Jan; Mikulková Zuzana; Jeřábek Martin
Formulation for intranasal administration of antidotes in organophosphate poisoning	Novobilský Adam; Ciganek Miroslav; Pařenicová Martina; Fojtíková Martina; Straková Nicol; Mašek Josef; Mašková Eliška; Chisholm Robert; Zechmeisterová Kristína
Recombinant bovine follicle-stimulating hormone (FSH) and its in vitro biological activity	Gebauer Jan; Héžová Renata; Mašek Josef; Vráblíková Alena
Bacterial mixture for the fermentation of feed for weaned piglets	Seidlerová Zuzana; Matiašovicová Jitka; Rychlík Ivan
Vegetable beverage with a starter culture and controlled initiation of fermentation	Charvátová Michaela, Šťastný Kamil, Ryšávk Petr, Čmielová Jana, Adamcová Anežka
Smoothie with a starter culture and controlled initiation of fermentation	Charvátová Michaela, Šťastný Kamil, Ryšávk Petr, Čmielová Jana, Adamcová Anežka

Incidental Institutional Activities



VRI Once Again Contributed to the Days of Electron Microscopy with Insights into the Microworld

This year, we once again participated in the Days of Electron Microscopy, an event aimed at highlighting the importance and benefits of electron microscopy in research, while offering a look into life within the microworld. The Brno Observatory and Planetarium is the main organizer of this event held from 24 to 30 March, 2025.

VRI offered event attendees the opportunity to explore the microworld of heroes through an exhibition of electron microscope images at the VRI Small Gallery. Images of the microworld heroes, this time bacteriophages, displayed on the exhibition panels of our gallery, will be available for viewing until 23 April, 2025.

As part of the exhibition opening, a lecture series titled „The Microworld Deserves Our Attention“ took place on 26 March, 2025. Attendees had the opportunity to listen to lectures not only on the history and current state of electron microscopy, presented by Dr. P. Kulich from VRI, but also on the inhabitants of the microworld — organisms that significantly impact our health and the ecosystems we live in — in a lecture by Doc. L. Eyer, also from VRI. The fact that the study of these small but immensely important organisms reveals new possibilities for their use in medicine and other related fields was confirmed by Prof. R. Pantůček from Masaryk University in his lecture.

The use of bacteriophages is also not unfamiliar to VRI, as one of the Institute’s main scientific activities involves monitoring trends in resistance of bacteria from animals, food, and humans to antimicrobial agents, as well as identifying the pathways of resistance transmission from animals to humans, either directly or through the food chain.

Therefore, we focus on monitoring the occurrence of resistance in zoonotic bacteria in the food chain, such as *Salmonella* spp., *Campylobacter* spp., and *Listeria monocytogenes*, and bacteria of veterinary importance, such as *Escherichia coli*, *Staphylococcus aureus*, *Streptococcus* spp., *Actinobacillus pleuropneumoniae*, *Histophilus somni*, and *Enterococcus* spp.

There are several ways to reduce the rise of antimicrobial resistance.

For example, early and accurate diagnostics allowing for better targeting of therapy, vaccination and preventive measures, and the use of probiotic cultures that reduce the occurrence of pathogenic bacteria. Or, the use of phages, which target specific species of bacteria. Therefore, phage therapy is considered an alternative approach to treating bacterial diseases that reduces the need for antibiotics.



Veterinary Research Institute Opens Its Doors to the Public at Open House Brno 2025

The eighth annual Open House Brno festival took place over the weekend of 17–18 May 2025. VRI participated for the fourth time, offering visitors the opportunity to explore the architecturally valuable buildings and landscape grounds in Medláňky on Saturday through three guided tours led by the Institute's director, MVDr. Martin Faldyna, Ph.D. Library tours were conducted by librarians Jana Zoufalá, DiS., and Mgr. Kateřina Kolářová.

During the tour, participants learned about the history of the Institute, which was established in 1955 by the Ministry of Agriculture as part of the Czechoslovak Academy of Agricultural Sciences. Since then, VRI has focused on developing diagnostic, preventive, and therapeutic methods for a wide range of diseases affecting both farm animals and companion animals, with a reach into human medicine. The VRI complex, constructed between 1958 and 1963 based on the design by architect Vladimír Beneš, is an example of late socialist re-

alism with modernist elements. Its dominant feature is a group of three five-storey laboratory buildings topped with broken-line mono-pitched roofs that resemble bird wings. The landscaping was designed by the renowned landscape architect Ivar Otruba.

Visitors were captivated by the entrance hallway illuminated through a circle of glass blocks, as well as the library with a mezzanine gallery and a spiral staircase made of bent wood. The tour also included the VRI Small Gallery, founded in the 1970s, where guests could view the current exhibition dedicated to the gallery's first 15 years. A notable highlight was the visit to the civil defence shelter in the building's basement, reflecting the era during which the complex was constructed. The final part of the tour was a visit to the top floor of Building 3, providing a stunning view of Medláňky and the Technology Park.



VRI Urban Summer Camp – Discovering Nature Together!

Between 7 July and 11 July, 2025, we were delighted to host the fourth annual Urban Summer Camp for the children of our employees — whether their parents or grandparents. The entire holiday week gave the children a wide range of exciting experiences and was made possible through the full financial support from the Ministry of Agriculture. This time, all 20 registered children took part in the summer camp. We prepared an engaging programme full of trips, educational walks, physical activities, and relaxing creative time. We believe the children had an unexpectedly fun start to their summer holidays with us. They made new friends and learned a little more about agriculture, nature conservation, and animal care. The programme was also shaped by suggestions from children in previous years, and we strive to fulfil some of their wishes while offering something new and interesting.

Each of the five camp days revolved around a key theme. The first day focused on finding one's way, navigation, and using a compass in nature. On the second day, the children set out on an animal-themed expedition guided by experts from Brno Zoo. On the third day, the children explored the nearby area of Medlánecké Hills, discovering the richness and vibrant colours of the local fauna and flora. Experienced guides from the environmental group Rezekvítek introduced them to fascinating places, shared stories, and highlighted the diverse range of plants, insects, and unique species found on the outskirts

of Brno. The key theme of the fourth day was the forest in its various forms and aspects. The children undertook an adventurous journey through the deep forest in search for a beautiful forest nursery hidden within. On site, they learned about the entire life cycle of a tree — from seed to seedling ready for planting. An interesting stop featuring the diversity of trees, shrubs, and lianas was the visit to the Křtiny Arboretum. The forest adventure and expert guidance were provided by the University Enterprise Masaryk Forest in Křtiny, which is part of Mendel University in Brno. On the last day, the children met with an instructor from the Czech Red Cross, who taught them essential principles and tips, and provided them with useful information for every young rescuer.

The goal of all the summer camp activities is to provide meaningful experiences and help children better understand the mission of agriculture, stay connected to nature, and gain a deeper appreciation of the work their parents or grandparents do at our Institute. The week, filled with trips, also included various small creative activities — the children made their own navigation viewer, learned to use a compass, crafted their favourite animal out of paper, and sometimes simply relaxed while watching a fairy tale. The enthusiastic feedback and the smiles of the children and their parents show that we gave them a week full of memorable experiences to start the summer holidays.



Collective Tree Planting at VRI: A Meaningful Saturday Morning

On Saturday, 11 October 2025, the VRI grounds transformed into a hub of teamwork, cheerful spirits, and pleasant gatherings. During this special event – a collective tree planting – the Institute’s employees, joined by their families, helped create a new green barrier at the back of the VRI grounds.

With guidance from experts and in cooperation with the University Enterprise Masaryk Forest in Křtiny, approximately 100 young trees and shrubs were planted, including several fruit-bearing species that would provide not only future shade and tranquillity, but also harvests.

The atmosphere remained very friendly throughout – with experienced leadership, collaborative efforts from all participants, refreshments, and a concluding sausage roast over a campfire. Participants relished not only the satisfaction of helping out, but also an unconventional Saturday morning spent in the enjoyable company of their colleagues.

“The purpose of the event was not only to protect our premises from external noise, but also to create a space that will come into bloom and bear fruit – both in the literal and figurative sense,” said VRI Director Martin Faldyna, who personally opened the planting event.

The Institute’s management extends their thanks to all who participated, lent a hand, and contributed to the planting of new trees for future generations. We hope everyone felt their Saturday morning was time well spent – that they came away not only with wonderful memories but also with the satisfaction of helping create



Library

In 2025, the Library continuously updated its holdings, purchased books and periodicals based on staff requests, and provided bibliographic services, including book lending and providing papers published in journals from its own fund, as well as from other Czech libraries and from abroad. The aforementioned updates to the library's holdings involve acquiring titles in veterinary medicine and related fields such as zoology, biomedicine, immunology, and others. Besides that, it fulfilled Interlibrary loan (ILL) requests for other libraries in the Czech Republic. It also provided basic reprographic services (scanning, copying, etc.).

As well as in previous years, the online access to full-texts of requested papers in consortium databases offered by Elsevier (ScienceDirect and Scopus), Springer and Wiley and to the abstract and citation database Web of Science was made possible for the VRI researchers. This range of special resources supported VRI's researchers in accessing the latest studies and information, significantly contributing to their research efforts.

The Veterinary Research Institute took part in the annual Open House event, offering the general public a tour of the library and the nuclear fallout shelter. Visitors had the opportunity to explore the library and learn more about its long history and operation.

In addition to professional literature, the VRI Library also provides lending of fiction books within the Employees' Library (<https://knihovna.vri.cz/>). The library's holdings are continually expanded with new and engaging titles in leisure reading and popular science. In the future, the library plans to maintain these activities, continue expanding its holdings, and provide literature search and reprographic services to the Institute's scientific staff.



In 2025, our Small Art Gallery hosted 8 exhibitions of photographs, graphic arts, woodcuts, paintings, etc. Some artists organised private viewing to their exhibitions.

- ⦿ **Klára Šiška a Veronika Malyjurková - Stories of the Landscape / Watercolours**
- ⦿ **Vlastimila Mlejnková - SO I'M NOT SURE... / Humorous Drawings and Illustrations**
- ⦿ **Electron Microscopy – Villain or Hero? / Photographs**
- ⦿ **Moravian Gallery – Small Art Gallery of the VRI: The First Fifteen Years (1971–1985) / Graphic Art (Combined Techniques) and Photographs**

- ⦿ **Tereza Filipová - Dubitatio / Paintings, Combined Techniques**
- ⦿ **Roman A. Muselík - Waiting for the Night/ Photographs**
- ⦿ **Petra Gescheidtová - Tabulae florales / Paintings**
- ⦿ **Lucie Pokludová - “Open Your Eyes... and Get Lucky” / Photographs**

Sisters MgA. Sylva Tománková and Andrea Ďurišová are responsible for the Small Art Gallery operation. For the history of exhibitions and current exhibitions please visit <https://www.vri.cz/spoluprace-s-praxi/mala-galerie/>



Additional Activities

Veterinary Committee for Food Safety in 2025

In 2025, the Veterinary Committee for Food Safety, supported organizationally by the VRI, operated with the following members:

Chairperson of the Committee: RNDr. Miroslav Machala, CSc. (VRI)

The new Chairperson of the committee was elected: MVDr. Ivana Koláčková, Ph.D. (MUNI MED).

Secretary of the Committee: Mgr. Soňa Marvanová, Ph.D. (VRI)

Members:

MVDr. Pavel Alexa, CSc. (VRI, former employee)

Doc. MVDr. Jan Bardoň, Ph.D. (SVI Olomouc)

Prof. Ing. Petr Doležal, CSc. (MENDELU)

Prof. MVDr. Alfréd Hera, CSc. (ISCVBM Brno),

MVDr. Václav Jordán (Agris Medlov, former employee)

Doc. MVDr. Renáta Karpíšková, Ph.D. (LF MU)

RNDr. Miroslav Machala, CSc. (VRI),

MVDr. Eva Renčová, Ph.D. (ISCVBM Brno)

Prof. RNDr. Daniel Růžek, Ph.D. (MUNI SCI)

Mgr. Petra Vašíčková, Ph.D. (LF MU)

Prof. MVDr. Vladimír Večerek, CSc. (VETUNI Brno)

Prof. MVDr. Lenka Vorlová, Ph.D. (VETUNI Brno)

Professional activity of the Committee in 2025 focused mainly on processing and discussion of four studies closely related to current issues in veterinary medicine and food and feed safety:

Verification of the antiphlogistic activity of *Potentilla argentea* in an enteritis model (Prof. Hera et al.)

Comparison of methicillin-resistant *Staphylococcus aureus* (MRSA) strains isolated from pigs in slaughterhouses and from humans in the Czech Republic: Findings and characteristics (Doc. Karpíšková et al.)

Characterization of extended-spectrum beta-lactamase (ESBL)producing *Klebsiella pneumoniae* isolates from pets and their comparison with human isolates (Dr. Koláčková et al.)

Genetic identification of pathogenic agents excreted by bats (Dr. Vašíčková et al.)

At the request of the Ministry of Agriculture, two expert opinions were prepared:

Laboratory methods for the quantitative determination of A2 β -casein in cow's milk and dairy products – a literature review (Dr. Zemanová et al.)

Natural substances in the prevention of animal diseases and the reduction of antibiotic use – antibiotics in the prevention of bovine mastitis (Prof. Hera et al.)

The Chairperson and members of the Committee monitored the current risks and scientific opinions related to veterinary medicine and food safety (EFSA studies, EU pharmacological legislation, etc.). The Chairperson of the Veterinary Committee for Food Safety participated in a regular meeting of the EREN (Emerging Risks Exchange Network) panel organised by the European Food Safety Authority (EFSA).



Collection of Animal Pathogenic Microorganisms (CAPM)

• Deposition of:

- New bacterial and viral isolates into the CAPM
- Cultures of microorganisms for the purposes of patent procedures in the Czech Republic
- Storage in safe deposit (cultures remain the property of the depositor)

• Areas of advisory services

- Taxonomy of bacteria and viruses
- Growing bacterial cultures
- Isolation and growth of viruses in cell cultures and chicken embryos
- Detection of mycoplasma contamination in viral and cell cultures and its elimination
- Cryopreservation of bacteria, viruses and cell cultures
- Biosafety and biosecurity

• Distribution of cultures of animal pathogenic bacteria and viruses

- Database of available strains is accessible through the Internet at <http://www.vurv.cz/collections/vurv.exe/search?lang=cz>

• Lyophilisation services

Head: MVDr. Markéta Reichelová, Contact: Phone: +420 5 33332131, E-mail: marketa.reichelova@vri.cz



Centre of Laboratories- Testing laboratory No. 1354

Accredited entity according to ČSN EN ISO/IEC 17025:2005

01- Laboratory for Animal Health and Food Safety

Detection of human noroviruses, hepatitis A and E viruses, and SARS-CoV-2 by real-time RT-PCR.

02- Laboratory for Fish Viral Diseases

Processing of fish tissues for virological examination and isolation of viruses pathogenic to fish on cell lines

Detection of selected sections of DNA and RNA sequences in fish viruses by PCR method

Detection of selected sections of DNA and RNA sequences of fish viruses by real time PCR method

03- Laboratory for Spermatology and Andrology

Laboratory examination of sperm; determination of the functions of male reproductive organs; biological safety testing of various materials for sperm

04- Laboratory for Bovine Diseases

Bovine Viral Diarrhoea (BVD) – detection of antibodies by ELISA method

Infectious Bovine Rhinotracheitis (IBR) – detection of antibodies by ELISA method – method available since 20 December 2022.

Paratuberculosis – detection of antibodies by ELISA method

Detection of the causative agent of paratuberculosis (PTB) using quantitative PCR

05- Laboratory for Electron Microscopy

Diagnostics of viruses by negative staining method

Human Resource Management in Research - HR Award

The year 2025 was another year of building a high-quality working environment at our Institute and caring for our most valuable asset—our employees. We can proudly state that we continue to uphold a tradition of excellence in human resources, which forms the foundation of the success of our research and the Institute’s overall activities.



The Institute received a positive interim evaluation from the European Commission for its implementation of the Human Resources Strategy for Researchers

This evaluation confirms that the implementation of the Human Resources Strategy is proceeding in the right direction and demonstrates the sincerity of our commitment to the continuous improvement of the working environment for our employees. The European Commission’s assessment report highlights the Institute’s strengths, such as transparent communication, ethical values, and efficient HR processes,

What does this mean for us in practice?

We focus on transparent and fair processes in human resources management. We implement the principles of the Code and the Charter for Researchers, which ensure ethical and professional standards for all employees, regardless of their position or length of service at the Institute.

Implementation of the HR Award Action Plan for 2025

The year 2025 was a year of preparation for the implementation of the next phase of activities under the HR Award Action Plan, particularly in relation to the awarded OP JAK project ‘Research Environment’. We did not focus solely on fulfilling formal

and further acknowledges our efforts to achieve overall alignment with European standards in human resources management. The format of the presentation of our activities was also positively evaluated, as it provides complete and clear information on the implemented measures.

A safe, respectful working environment

Our values in practice:

- Respect for the individuality of each team member
- Support for open and constructive communication
- Recognition of both professional and personal achievements
- Creating opportunities for development and growth

Success achieved through active engagement of employees

It is essential to emphasise that the activities implemented to date would not have been successful without the active involvement and support of our employees. Their cooperative approach, constructive feedback, and willingness to collaborate have created an environment in which HR initiatives can truly function and deliver tangible results. We have built on the strong cooperation established in previous years and

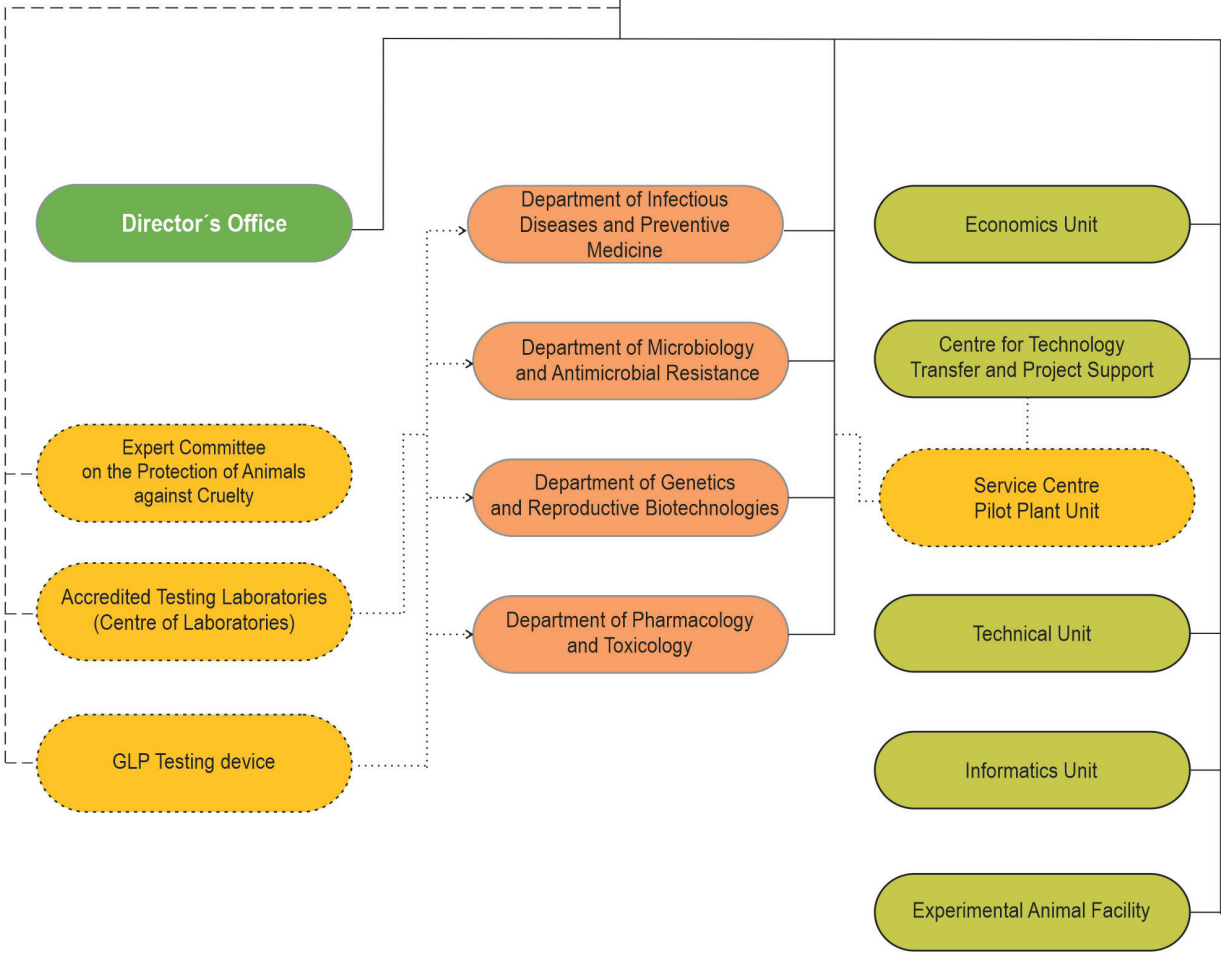
strengthened areas identified by employees as necessary. This approach—listening to and responding to the real needs of people—forms the foundation of our success in human resources management.

VETERINARY RESEARCH INSTITUTE

SUPERVISORY BOARD

DIRECTOR
DEPUTY DIRECTOR

VRI BOARD





Identifying Data

Identification No.: 00027162

Tax Identification No.:

CZ00027162

Address:

Hudcova 296/70

621 00 Brno

Czech Republic

Phone: + 420 533 331 111

Fax: +420 541 211 229

E-mail: vri@vri.cz

<http://www.vri.cz>

ID Data Mailbox: 3gsnh8r

Founder:

Ministry of Agriculture of the Czech
Republic

Based in: Těšnov 17

117 05 Praha 1

Identification No.: 00020478

The Veterinary Research Institute location on the map

GPS Loc: 49°23728"N, 16°57948"E

The Institute was founded on the basis of the Deed of Establishment Ref. No.: 22970/2006 - 11000, in accordance with § 3 of Act No. 341/2005 Coll., on public research institutions. The Veterinary Research Institute has become a public research institution with effect from 1 January 2007.

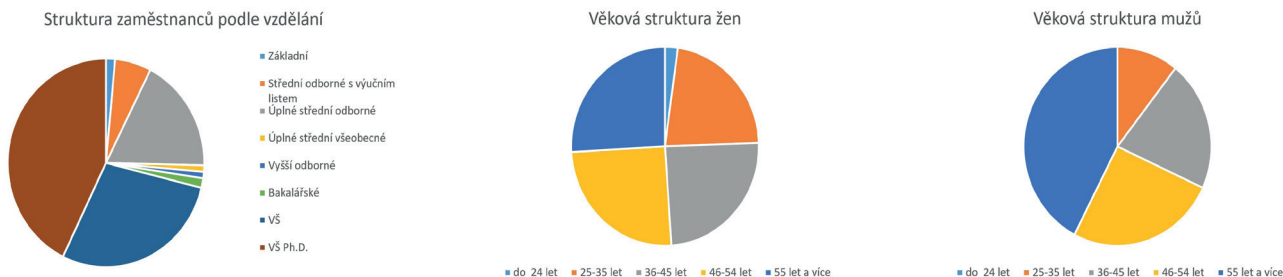
From the Deed of Establishment of the Veterinary Research Institute,
as of 8 February 2018. The register of public research institutions:

<http://rvvi.msmt.cz/detail.php?ic=00027162>

Basic personnel data

Total number of employees as of 31 December 2025
 Full-time equivalent (FTE) employees as of 31 December 2025
 Employees with disabilities

201
 167.68
 7



Long-term Conceptual Research Organization Development for 2023 – 2027

Decision number: MZE-RO 0523 I

Investigator: MVDr. Martin Faldyna, Ph.D.

The year 2025 marked the third year of the project supported from the VRI's finances entitled "Long-term Conceptual Research Organization Development for 2023 – 2027" (LTCROD). The LTCROD project builds on the period during which activities of the OP RDE projects were carried out. In preparing the LTCROD plan, consideration was also given to the documents of the Ministry of Agriculture's Concept of Research, Development and Innovation for 2023-2032, and the Strategy of the Ministry of Agriculture of the Czech Republic with an Outlook to 2030. The internal structure of the LTCROD project reflects the professional focus of the Veterinary Research Institute as a research organization of the Ministry of Agriculture. The internal structure reflects the organizational structure of the scientific part of the Institute. Thus, specific activities within the LTCROD were carried out through the implementation of 7 project plans that covered the whole range of topics in which the

VRI is professionally involved: (1) Infectious diseases, (2) Immunology and preventive medicine, (3) Diagnostics, antimicrobials, and probiotics, (4) Genetics and reproduction of farm animals, (5) Experimental and pharmacological toxicology, and (6) Modern dosage forms and pharmacology. The latter research project focused on completing the activities related to the National Sustainability Programme.

After the third year of the LTCROD project implementation, all the set indicators have been met and in most cases exceeded. In 2025, the Institute's staff were authors or co-authors of 59 publications in journals with impact factors above the median of the branches. In fact, this exceeds the planned number by 6. Other publication outcomes were 35, which is more than double the planned 17. The count of applied results reached 31, surpassing the planned quantity by 18. Two patents were granted. These figures demonstrate that the funds allocated for the institutional support of the Veterinary Research Institute were used effectively in alignment with their intended purpose.

SUBJECT OF THE MAIN ACTIVITIES

Basic and applied research and development in veterinary medicine, veterinary hygiene and ecology and related biomedical, agricultural and food sciences:

- ⊙ Involvement in international and national centres of research and development,
- ⊙ Activities of reference laboratories,
- ⊙ Operation of the Collection of Animal Pathogenic Microorganisms,
- ⊙ Scientific, professional and educational cooperation,
- ⊙ Transfer of research and development results, including new technologies, to end users,
- ⊙ Verification and dissemination of research results within the Institute's authority,

- ⊙ Hosting and holding of professional courses, seminars, and conferences, workshops and other professional events,
- ⊙ Function of an information centre and support of publishing in the field of veterinary medicine and food safety,
- ⊙ Experimentation,
- ⊙ Agricultural activities.

OTHER ACTIVITIES

Other activities relate to the major activities in the fields of veterinary medicine, veterinary hygiene and ecology and related biomedical, agricultural and food sciences:

1. Activities under the National Programme of Conservation and use of genetic resources of plants, animals and microorganisms important for nutrition and agriculture in conformity with Act No. 148/2003 Coll., on conservation and use of genetic resources of plants and microorganisms important for nutrition and agriculture and on amending Act No. 368/1992 Coll., on administrative fees, as amended (Act on Genetic Resources of Plants and Microorganisms).
2. Activity of the Veterinary Committee for Food Safety on the basis of the Resolution of the Government of the CR No. 1320 of 10 December 2001 concerning food safety strategy in the Czech Republic.
3. Expert witness activities in the fields of healthcare and agriculture; zoonotic diseases and infections of farm animals.

4. Commercial, financial, organizational and economic consulting.
5. Holding of professional courses, training and other educational activities, including lecturing activities.
6. Providing software and consultancy in hardware and software.
7. Graphics and drawing services.
8. Publishing services.

COMPLEMENTARY ACTIVITIES

FREE TRADES:

1. Activities of business, finance, organization and economic consultants
2. Research and development in sciences, technology and social sciences
3. Providing software, and consultancy in hardware and software
4. Copying services
5. Graphic art services
6. Specialized retail-sale and mixed goods
7. Hosting professional courses, trainings and other education, including lecturing
8. Publishing
9. Production of food products
10. Accommodation services

AGRICULTURAL ACTIVITIES

Part of the VRI agricultural area is designed for farm animal evacuation in case of fire or other emergency events. Such a designated fenced area with a tethering point for large farm animals, located away from the site of a potential accident is inevitable and conforms to the current legislation.

NON-TRADE ACTIVITIES

1. Letting real estate, apartments and non-residential rooms. (Besides letting out, no other services are provided by the lessor than basic services ensuring proper operation of the real estate, apartments and non-residential rooms.)
2. Agricultural production, provision of works and services in agriculture, production and sale of animals and animal and vegetable products.
3. Expert witness activities in the fields of healthcare and agriculture – zoonotic diseases and infections of farm animals.

THE VRI AUTHORITIES

Statutory representative of the VRI: **Doc. MVDr. Martin Faldyna, Ph.D.**

DIRECTOR'S BOARD

Member's name	Department
MVDr. Ján Matiašovic, Ph.D.	Department of Infectious Diseases and Preventive Medicine
Mgr. Magdaléna Crhánová, Ph.D.	Department of Microbiology and Antimicrobial Resistance
Doc. MVDr. Martin Anger, CSc.	Department of Genetics and Reproductive Biotechnologies
PharmDr. Josef Mašek, Ph.D...	Department of Pharmacology and Toxicology

Member's name	Department
Ing. Ildikó Csölle Putzová, Ph.D., MBA	Centre for Technology Transfer and Project Support
Roman Dvořáček	Informatics Unit
Mgr. František Pernica	Economics Unit
Marie Sobotková	Experimental Animal Facility
Ing. Jiří Svoboda	Technical Unit
BOZP Servis s.r.o., Ing. Josef Nováček	Safety Officer
Ing. Jan Rázek, Pavla Dobrovská	Director's Office
Jana Křížová	HR Officer
Ing. Jiří Kolísek HR	HR Coordinator
Irena Smrčková, MSc.	Internal Auditor
MVDr. Kateřina Nedbalcová, Ph.D.	Veterinary Trade Union

MEMBERS OF THE SUPERVISORY BOARD

Member's name	Function	Organisation
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Doc. Dr. Ing. Josef Kučera	Deputy-Chairperson	Czech-Moravian Breeders Corporation
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Ing. Martin Holman	Member	Ministry of Agriculture
MVDr. Martin Beňka	Member	State Veterinary Administration
Ing. Jan Vodička	Member	Ministry of Agriculture
Prof. MVDr. Alfred Hera, CSc.	Member	Institute for State Control of Veterinary Biologicals and Medicines

THE VRI BOARD

Member's name	Function	Organisation
RNDr. Jana Prodělalová, Ph.D.	Chairperson	VRI
MVDr. Ján Matiašovic, Ph.D.	Deputy-Chairperson	VRI
Doc. MVDr. Martin Faldyna, Ph.D.	Member	VRI
MVDr. Kamil Kovařík, Ph.D.	Member	VRI
PharmDr. Josef Mašek, Ph.D.	Member	VRI
MVDr. Ján Matiašovic, Ph.D.	Member	VRI
MVDr. Kateřina Nedbalcová, Ph.D.	Member	VRI
Doc. MVDr. Adam Novobilský, Ph.D.	Member	VRI
MVDr. Ľubomír Pojezdal, Ph.D.	Member	VRI
MVDr. Markéta Reichelová	Member	VRI
Mgr. Magdaléna Crhánová, Ph.D.	Member	VRI
MVDr. Jiří Bureš	External member	Institute for State Control of Veterinary Biologicals and Medicines
MVDr. Jana Kozáková, Ph.D. (from 3 June 2024)	External member	Regional Veterinary Administration of the State Veterinary Administration for South Moravian Region
Prof. MVDr. Vladimír Celer, Ph.D.	External member	University of Veterinary Sciences Brno
MVDr. Kamil Sedlák, Ph.D.	External member	State Veterinary Institute, Prague
Doc Ing. Pavel Ryant, Ph.D.	External member	Mendel University in Brno

THE ACTIVITIES OF THE VRI BOARD IN 2025

In 2025, three regular meetings of the VRI Board were held. The meetings included formal acts related to the running of the institution: The VRI Board members discussed the Institute's budget and the Annual Report of the Institute. The Board members also discussed and approved updates to the Election Rules of the VRI Board, the Rules of Procedure of the VRI Board, and the Organisation System of the VRI. Furthermore, internal regulations such as the Internal Salary Assessment, the Social Fund, the Bonus Regulation, and the Rating System for the evaluation of teams were discussed. Throughout the

year, submitted project proposals for open calls from various providers were reviewed. Three representatives of the VRI Board participated in the selection procedure for Director as members of the selection committee.

VRI and the Media



Probiotics from Wild Boars Instead of Antibiotics in Feed for Domestic Pigs



Research on Resistant Bacteria in Meat Products and Dairy Products



KEY PERFORMANCE INDICATORS

201 EMPLOYEES

Contract
research
17 mil. CZK
2025

cooperation in **27** countries worldwide

14 Research groups

valid patents **16**

45 valid utility models

43 PROJECTS

R&D Results 2025

- Publications
- Applied results
- Other results





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 @vuelbrno



 @vuelbrno4233



The image features a central graphic composed of two concentric circles. The inner circle is split vertically, with the left half in a dark grey and the right half in a light grey. The outer circle is a uniform medium grey. Two curved lines, one solid and one dashed, arc over the top of the circles from left to right. Another set of curved lines, one dash-dot and one dotted, arcs under the bottom of the circles from right to left. The background is split vertically into a dark grey left half and a light grey right half.

YearBook 2025
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