**SERVICE AGREEMENT**

signed under § 1746 section 2 Law No. 89/2012 Coll. between

**Mezinárodní testování drůbeže, státní podnik**

**International poultry testing, state enterprise**

Ústrašice 63, 390 02, Tábor, Czech Republic

Company Number: 43833560

VAT Number: CZ643833560

Statutary organ: Ing. Jan Tyl, Director of institute

Represented by Ing. Jan Tyl

Primary Contact: Ing. Jan Tyl, contact XXXXXXXXXXXXXX

(Hereafter also as “**MTD**”)

and

**PATENT CO. DOO MIŠIĆEVO**

1A Vlade Ćetkovića Street, 24.211 Mišićevo, municipality of Subotica, Republic of Serbia

Company number: 08829675,

VAT Number: 103629419

Represented by the Director, Mr. Marko Baljak and the Procurator, Ilya Kuznetsov

Primary contact: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

(Hereafter also as “**Orderer**” or **PATENT CO. DOO MIŠIĆEVO**)

Enter into this Service agreement (the “**Agreement**”) dated as seen on the signature page:

This Agreement sets forth terms under which MTD shall provide services to **Orderer**. This Agreement is effective upon signing.

1. **Services.** MTD shall provide the testing consisting of the supply of data and reports for the purposes of “Trial *in vivo*: Phytochemical in drinking water for controlling poultry red mite (*Dermanyssus gallinae*)” (“**Testing**”) to the **PATENT CO. DOO MIŠIĆEVO** as described on one or more Statements of Work signed by MTD and **PATENT CO. DOO MIŠIĆEVO** that reference this Agreement (“**SOW**” or “**Statement of Work**”). The Parties state that they anticipate that only one SOW will be executed as it is also attached to this Agreement. However, if it is agreed that another SOW will be entered into, the Parties are entitled to use this Agreement as the basis for another SOW.

MTD commence performance of the Testing promptly and prepare a final data and report (“**Deliverable**”) for **PATENT CO. DOO MIŠIĆEVO** no later than the due date specified in the applicable SOW (“**Completion Date**”). This due date is subject to change in accordance with the Change Order process defined in the applicable SOW. **PATENT CO. DOO MIŠIĆEVO** shall assist MTD by promptly providing all information and material requests known or available and relevant to the Services in a timely manner.

2. **Contract Price.** For performance of the Testing and rendering the Deliverable, **PATENT CO. DOO MIŠIĆEVO** shall pay to MTD total price of **12 600 EUR** **without VAT**. However, if another SOW (other than SOW NO. 1; is agreed, this financial scope will be increased by mutual agreement of the MTD and Orderer.

3. **Dates of Performance.** MTD will begin performing testing upon receipt of signed Agreement. Unless terminated as provided in this Agreement, MTD will complete testing by the Completion Date. Deliverable shall be furnished to **PATENT CO. DOO MIŠIĆEVO** within fiveteen days of Completion Date.

4. **Change in Testing.** If **PATENT CO. DOO MIŠIĆEVO** desires changes to the SOW, **PATENT CO. DOO MIŠIĆEVO** shall submit to MTD a written request in accordance with the change order process defined in the applicable SOW. The parties may execute additional Statements of Work describing Testing, which will become part of this Agreement upon execution by MTD and the **PATENT CO. DOO MIŠIĆEVO**. If additional SOW are executed, then **PATENT CO. DOO MIŠIĆEVO** shall pay MTD for all services performed prior to the additional SOW before MTD begins work on the new SOW.

5. **Payment of testing.** In exchange for MTD’s Testing under this Agreement, the **PATENT CO. DOO MIŠIĆEVO** shall pay MTD the contract price set forth above. MTD will submit a final invoice to **PATENT CO. DOO MIŠIĆEVO** for all testing rendered by the Services Completion Date and **PATENT CO. DOO MIŠIĆEVO** shall promptly pay, no later than 30 days after receipt of the invoice. **PATENT CO. DOO MIŠIĆEVO** is restricted from using any form of the Deliverable until final payment is received. In the event of a good faith dispute with regard to an item appearing on an invoice, MTD shall have the right to withhold the Deliverable while the parties attempt to resolve the disputes.

6. **Representations and Warranties.**

6.1 MTD’s Representation: MTD represents that any materials used in the Deliverable will not knowingly (a) infringe on the intellectual property rights of any third party or any rights of publicity or privacy or (b) violate any law, statute, ordinance or regulation.

6.2 **PATENT CO. DOO MIŠIĆEVO**’s Representation: **PATENT CO. DOO MIŠIĆEVO** represents that any materials provided to MTD by **PATENT CO. DOO MIŠIĆEVO** for incorporation into the Deliverable will not (a) infringe on the intellectual property rights of any third party or any rights of publicity or privacy or (b) violate any law, statute, ordinance or regulation.

6.3 Warranty Disclaimer. EXCEPT FOR THE WARRANTIES SET FORTH IN THIS AGREEMENT AND ANY SOW, EACH PARTY EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES OF ANY KIND OR NATURE, WHETHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

7. **Ownership of Deliverables. “Intellectual Property Rights”** means any and all (a) rights associated with works of authorship, including but not limited to copyrights, (b) trademark and trade name rights and similar rights, (c) trade secret rights, (d) patents and (e) all other intellectual property rights in any jurisdiction throughout the world. To the fullest extent permitted by law, **PATENT CO. DOO MIŠIĆEVO** retains ownership in all Intellectual Property rights of the Deliverable. Further, **PATENT CO. DOO MIŠIĆEVO** retains all ownership and Intellectual Property Rights to the raw video footage, images, data and other components comprising the Deliverable for its future use. Upon full payment of the deliverable, **PATENT CO. DOO MIŠIĆEVO** owns all compound related intellectual property rights. **PATENT CO. DOO MIŠIĆEVO** shall retain sole ownership of all Intellectual Property Rights in connection with any original material it provides to MTD for use within the Deliverable. In no event will MTD be liable for any claims

related to or arising from **PATENT CO. DOO MIŠIĆEVO**’s improper use of the Deliverable, work in process, or the raw video, images, data and other components that comprise the Deliverable or work in process.

8. **Confidential information**

8.1 Both parties acknowledge that during the Agreement they will have access to Confidential Information. The parties have therefore agreed to accept the restrictions in this clause 9. For the avoidance of doubt, the parties state that this Agreement in its entirety (including the SOW) is not confidential information and is subject to disclosure as set forth in Article 16 of this Agreement.

8.2 The parties undertake to each:

9.2.1 Maintain as secret and confidential all Confidential Information obtained directly or indirectly from the disclosing party in the course of or in anticipation of the Agreement and to respect the rights of the disclosing party pertaining to such Confidential Information;

9.2.2 Use the Confidential Information of the disclosing party exclusively for the direct purpose of carrying out their obligations under the Agreement; and

92.3. Disclose the Confidential Information of the disclosing party only to those of its employees, contractors, and sub-licensees pursuant to the Agreement (if any) to whom and to the extent that such disclosure is reasonably necessary for the purposes of carrying into effect the Agreement.

8.3 The provisions of clause 9.2 will not apply to Confidential Information which the receiving party can demonstrate by reasonable written evidence:

9.3.1. Was, prior to its receipt by the receiving party from the disclosing party, in the possession of the receiving party and at its free disposal;

9.3.2. Is subsequently disclosed to the receiving party without any obligations of confidence by a third party who has not derived it directly or indirectly from the disclosing party;

9.3.3 Is or becomes generally available to the public through no act or default of the receiving party or its agents, employees or sub-licensees; and

9.3.4 The receiving party is required to disclose to the courts of any competent jurisdiction, or to any government regulatory agency or financial authority, provided that the receiving party will:

9.3.4.1 Inform the disclosing party as soon as reasonably practicable; and

9.3.4.2. At the disclosing party's request, seek to persuade the court, agency or authority to have the Confidential Information in question treated in a confidential manner, where this is possible under the court, agency or authority's rules or procedures.

8.4. Each receiving party will procure that all of its employees, contractors and sub-licensees (if any) pursuant to the Agreement who have access to Confidential Information will be made aware of and subject to these obligations and will have entered into written undertakings of confidentiality at least as restrictive as those in clause 9.

9. **Indemnification.** **PATENT CO. DOO MIŠIĆEVO** will defend, indemnify and hold MTD harmless from any and all claims, losses, liabilities, damages, expenses and costs (including attorneys’ fees and court costs) arising from or relating to any claims regarding elements or materials provided by **PATENT CO. DOO MIŠIĆEVO** and incorporated into the Deliverable. Additionally, **PATENT CO. DOO MIŠIĆEVO** will defend, indemnify and hold MTD harmless from any and all claims, losses, liabilities, damages, expenses and costs (including attorneys’ fees and court costs) arising from or relating to any claims regarding **PATENT CO. DOO MIŠIĆEVO** ’s unauthorized use of any video, images, data or other materials comprising the Deliverable.

10. **Limitation of Liability .** MTD WILL NOT BE LIABLE FOR ANY LOSS OF USE, INTERRUPTION OF BUSINESS, LOST PROFITS, OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND REGARDLESS OF THE FORM OF ACTION WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT PRODUCT LIABILITY, OR OTHERWISE, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL MTD’S AGGREGATE LIABILITY UNDER THIS AGREEMENT EXCEED THE FEES (CONTRACT PRICE**)** PAID TO MTD HEREUNDER.

11. **Compliance with Laws.** Each party shall perform all of its obligations under this Agreement in compliance at all times with all generally binding regulations, statutes, orders and regulations, including those relating to privacy and data protection.

12. **General.** If any provision of this Agreement is adjudged by any court of competent jurisdiction to be unenforceable or invalid, that provision shall be limited or eliminated to the minimum extent necessary so that this Agreement will otherwise remain in full force and effect. Any waivers or amendments shall be effective only if made in writing signed by a representative of the respective parties. Both parties agree that this Agreement is the complete and exclusive statement of the mutual understanding of the parties, and supersedes and cancels all previous written and oral agreements and communications relating to the subject matter of this Agreement. Both parties agree that the Agreement is signed by a duly, authorized MTD representative authorized to bind the MTD to its terms and services and no consent from any third party is required.

13. **Choice of Law.** This Agreement will be deemed to have been made in, and shall be construed pursuant to the laws of the Czech Republic without regard to conflicts of law’s provisions thereof. Any suit or proceeding arising out of or relating to this Agreement shall be brought in the general courts of the Czech Republic, where the local jurisdiction of the court is determined by the place of the MTD's registered office on the date the action is filed and each party irrevocably submits to the jurisdiction and venue of such courts.

14. **Third party cooperation**. The Orderer is obliged to ensure the cooperation of the third party necessary for the proper fulfilment of MTD’s obligations under this agreement. The third party is:

Biologické centrum AV ČR, v.v.i., IČ: 600 77 344, DIČ: CZ60077344, with seat

Branišovská 1160/31, 370 05 České Budějovice, tel. +420 387 775 403.

The Orderer shall ensure cooperation on the testing at the third party’s service:

The Orderer shall ensure such cooperation on the part of the third party at the third party’s premises:

• **Assistance during infestation**

A BC shall assist an employee of MTD Ústrašice during the artificial infestation of hens with *Dermanyssus gallinae*.

• **Provision of monitoring traps**

BC shall provide MTD Ústrašice with monitoring traps for the surveillance of poultry red mite populations in the experimental groups, and MTD Ústrašice shall ensure their installation and operation.

• **In vivo feeding experiment**

BC shall prepare and deliver *in vivo* feeding devices containing starved *Dermanyssus gallinae*. A BC employee will assist during the *in vivo* feeding experiment. The BC employee shall collect the engorged mites, transport them to BC for further monitoring.

• **Final report**

BC shall compile and prepare the final merged report, integrating the data generated by both institutions.

**15. Contract register**. This Agreement comes into valid existence as of the day of its conclusion. The day of its conclusion is the date specified next to the Parties' signatures. If there are several dates given next to the Parties' signatures, then the latest date is the day of conclusion. This Agreement takes effect as of the day on which it has ben published in the Czech register of contracts as envisioned by Act No. 340/2015 Coll., on the contract register. The Parties agree that information (such as personal data, business secrets), unless properly highlighted beforehand (in yellow) as per the Parties' prior understanding on redactions, may be published in the contract register in accordance with Act No. 340/2015 Coll., on the contract register. All such information as the Parties agreed to remove from the duty of publication in the contract register kept by the Czech Ministry of Interior shall be rendered illegible before the publication of the Agreement in the contract register as such. The Parties have agreed that it is the MTD's responsibility to see to it that the Agreement is published in the contract register in accordance with Act No. 340/2015 Coll. Performance of the subject matter of this Agreement prior to the effective date of this Agreement will be deemed to be performance under this Agreement when rights and obligations arising therefrom are governed by this Agreement

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| In Mišićevo  on ……………………………….. | In Ústrašice  on ……………………………….. |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Mr. Marko Baljak  **PATENT CO. DOO MIŠIĆEVO**  Director | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Ing. Jan Tyl, Director of Institute  **Mezinárodní testování drůbeže, státní podnik**  **International poultry testing, state enterprise** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Mr. Ilya Kuznetsov  **PATENT CO. DOO MIŠIĆEVO**  Procurator |  |

**SOW NO. 1**

The purpose of this SOW is to describe the Testation that MTD will provide to **PATENT CO. DOO MIŠIĆEVO** under the terms and conditions of the Services Agreement entered into between the parties on the date of the last signature of that Agreement (the “**Agreement**”). Additional terms and conditions may be set forth in this SOW. To the extent the terms and conditions of this SOW are inconsistent with those of the Agreement, the terms of this SOW will control with respect to the Services described herein. Capitalized terms used herein shall have the same meaning as those used in the Agreement. This SOW is an attachment to, and is incorporated by this reference into the Agreement as if fully set forth therein and made a part thereof. This SOW, together with the Agreement, represents the complete and total understanding of the parties regarding the Services to be provided by MTD hereunder.

1. **Testing Period.**

Unless otherwise terminated earlier in accordance with the terms of the Agreement, the Services will end upon the completion of the Services by MTD. Unexpected national and inter-national events preventing execution of agreed service may cause a delay.

**2. Testing.**

The Testing outlined in this SOW reflect the initial understanding of **PATENT CO. DOO MIŠIĆEVO**’s desired Deliverable and BC reserves the right to alter the manner in which Services are provided if BC determines different services are necessary to complete the Deliverable. BC shall provide the following Services to the **PATENT CO. DOO MIŠIĆEVO**: [Artificial mite infestation of experimental birds, blood sampling, quantitative analysis of mite populations from photographic images of trap contents supplied by MTD Ústrašice, *in vivo* feeding trials with *Dermanyssus gallinae* including post-feeding survival and viability assessment, and preparation of a final merged report integrating BC-generated data with data provided by MTD Ústrašice.]

**3. Deliverables.**

MTD Ústrašice shall provide BC with all relevant data for the final merged report on an ongoing basis. This data shall include, for example, a brief methodology in Czech, information on the experimental hens, their body weight and plumage scoring, their egg production, the qualitative parameters of the eggs, and photographic images of the trap contents in sufficient quality.

**4.** **Fees and Terms.**

Start Date: October 1st 2025

Completion Date: **January 31st 2026** (may be postponed according to the regime laid down in Art. 3.5. above)

Fixed Price: 12 600,- EUR without VAT

If the **PATENT CO. DOO MIŠIĆEVO** desires to initiate changes to the SOW, it shall submit to MTD a written request to do so. The request will set forth the nature of the MTD’s proposed changes to the SOW. Contractor shall complete and return to the MTD a written document (“**Change Order**”) setting forth (i) a written description of the changes to the SOW, (ii) any changes to the schedule, (iii) any changes or additions to the Deliverables and (iv) any changes or additions to the fees. A Change Order will be binding only if signed by both parties. Any and all Change Orders will be governed by the terms and conditions set forth in this Agreement, and are hereby incorporated by this reference. Any additional Deliverables described in the Change Order will be subject to the Payment provisions as described in Section 7 of the Agreement.

**5.** **Special Instructions.**

#### *Aims* *and experimental designs*

**Mite infestation**

In collaboration with the Laboratory of Molecular Biology of Ticks at the Biology Centre CAS, experimental animals will be artificially infested by introducing poultry red mites *(Dermanyssus gallinae)* into the cages at a target density of approximately 2,000 mites per bird.

**Blood sampling**

In collaboration with the Laboratory of Molecular Biology of Ticks at the Biology Centre CAS, 4 blood sampling sessions (each involving 3-5 birds per group) will be carried out. The blood will be collected by an MTD Ústrašice employee, with a BC employee assisting during the procedure (e.g., handling equipment, preparing samples)

**Monitoring of mite population**

MTD Ústrašice will be responsible for the installation and operation of monitoring traps (4 traps per group). Each trap consists of a plastic tube with an inner diameter of 27 mm, containing a rolled piece of corrugated cardboard (8 × 30 cm) that serves as a shelter for mites.

At five predefined timepoints, the traps will be opened, and mites will be gently transferred onto white paper using a paintbrush. A photographic image will be taken of each sample and sent to the Biology Centre CAS for quantitative mite counting. After imaging, mites will be returned to their original cages.

**The *in vivo* mite feeding** experiment will be carried out in collaboration with the Biology Centre CAS, following the methodology described by Nunn et al. (2019) or Liu et al. (2025). A total of 16 hens (4 per group) will be used. Feeding devices prepared by BC will be installed on the hens by an MTD Ústrašice employee, with assistance from a BC employee. After feeding, the BC employee will collect engorged mites, transport them to the Biology Centre CAS.

**Monitoring of Laying Performance and Animal Physiology**

* **Body Weight** will be recorded for all hens at four defined timepoints during the experiment.
* **Plumage scoring** will be done according to Decina et al. (2019), using a 4-point scale: 0 – no feather loss, 1 – moderate feather loss, 2 – severe feather loss, 3 – complete feather loss.
* **Feed and Water Consumption** will be measured daily per cage (n = 16 cages in total). All data will be used to calculate feed intake and feed conversion metrics.
* **Monthly pictures of the animals** will be taken and recorded.
* **Daily temperature and relative humidity data** of the experimental room will be recorded.
* **Mortalities.**
* **Egg Production**
* The number of eggs laid will be recorded daily.
* The **percentage of broken and dirty eggs** will be calculated based on visual inspection.
* Eggs from each cage will be weighed collectively to determine **total egg mass** per cage per day.,
* **Feed Conversion Rate** (FCR) relative to egg mass will be calculated using data on feed intake, egg mass and body weight.
* **Egg Quality Parameters measured on a representative subset of eggs at 4 requested timepoints**
* **Shell thickness**
* **Yolk colour** will be evaluated using a standard colour fan or digital method
* **Egg protein quality** will be assessed using the **Haugh unit** as a measure of albumen height and egg weight
* **Egg weight**
* **Yolk weight**
* **Shell strength (in Newtons)**
* **Shell colour**

Data report

MTD Ústrašice will provide BC with all relevant data for the final merged report on an ongoing basis. This data shall include, for example, a brief methodology in Czech, information on the experimental hens, their body weight and plumage scoring, their egg production, the qualitative parameters of the eggs, and photographic images of the trap contents in sufficient quality.

The detailed procedures of the experiment, including the heating of the experimental hall to 25°C ± 2°C, which will commence on October 1st 2025 and conclude on January 6th 2026, are presented in the table below. The execution of each procedure and sampling may vary by ±5 days from the scheduled dates.



References

Nunn F, Bartley K, Palarea-Albaladejo J, Innocent GT, Turnbull F, Wright HW, Nisbet AJ. A novel, high-welfare methodology for evaluating poultry red mite interventions in vivo. *Veterinary Parasitology*. 2019 May;267:42-46. doi: 10.1016/j.vetpar.2019.01.011.Liu B, Liu Q, Wang B, Wang P, Zhu K, Meng J, Li H, Sun W, Pan B. An efficient in vivo feeding method for poultry red mites, *Dermanyssus gallinae* (Acari: Dermanyssidae). *Veterinary Parasitology*. 2025 Feb;334:110405. doi: 10.1016/j.vetpar.2025.110405.Decina C, Berke O, van Staaveren N, Baes CF, Harlander-Matauscheck A. Development of a Scoring System to Assess Feather Damage in Canadian Laying Hen Flocks. Animals (Basel). 2019 Jul 10;9(7):436. doi: 10.3390/ani9070436. PMID: 31295882; PMCID: PMC6680733.

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