

**INNOVATION  
TECHNOLOGY CONTRACT  
ADMINISTRATIVE PROCESS 23110.013157/2024-39**

**PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION**

By this private instrument, the **PARTNERS** below:

**FOUNDATION UNIVERSIDADE FEDERAL DE PELOTAS** , federal agency with a special regime, with headquarters at Rua Gomes Carneiro, nº 1, Centro, CEP 96.010-610, Pelotas/RS, registered with the CNPJ under nº 92.242.080/0001-00, hereby represented , in accordance with its statute, by its Rector, Prof. Isabela Fernandes Andrade, Brazilian, holder of Identity Card No. 4057579858, registered with the CPF under No. 009.253.840-11, resident and domiciled in Pelotas/RS, appointed by Decree of January 5, 2021, published on 06/01/ 2021 in the DOU, section 02, hereinafter referred to as **UFPEL** ; It is

**PANOMATRIX, LLC** , a limited liability company, registered under the Law of the State of Ohio/USA, Ohio Incorporation No. 4875429, with headquarters at 1476 Manning Pkwy, Powell, OH 43065 USA, hereby represented by its president and director executive, Jeffrey R. Spitzner, Ph.D., born in the United States, resident and domiciled in the city of Columbus, OH, USA, hereinafter referred to as **the COMPANY**;

Individually designated as "**PARTY**" and, collectively, as "**PARTY**" ;

They resolve to enter into this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** in accordance with Law No. 10,973, of December 2, 2004, regulated by Decree No. 9,283, of February 7, 2018, of Law No. 14,133, of April 1, 2021, of Law No. 8,958, of December 20, 1994, regulated by Decree No. 7,423, of December 31, 2010, as applicable, and other relevant legal diplomas, in accordance with the following clauses and conditions:

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**CLAUSE ONE - DEFINITIONS**

For the purposes of interpreting this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION**, the **PARTIES** attribute the respective meanings to the terms defined below:

- a) **AGREEMENT** : means this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** ;
- b) **WORK PLAN** : means document attached to this **AGREEMENT** in which the object, form of execution, schedule of stages and/or activities, financial schedule, and other pertinent data relating to the execution of the **PROJECT** are specified and detailed ;
- c) **PROJECT**: means the Innovation Stimulation Project, object of the **WORK PLAN** and this **AGREEMENT**, entitled “**EVALUATION OF THE EFFECTS OF PANOMATRIX ACTIVATED NANOCELLULOSE ON HEALTHY AND DAMAGED SKIN OF MICE: PRE-CLINICAL STUDIES**”, registered as Action nº 28228 of the Academic Project “**EVALUATION OF THE EFFECTS INDUCED IN THE MATRIX OF SYNTHETIC COMPOUNDS ON HEALTHY AND DAMAGED SKIN IN MICE**”, registered in the **UFPEL** Academic System (COBALTO) under number 6521;
- d) **PERSONNEL** : means all employees, administrators, representatives, partners, civil servants, researchers, scholarship holders, students, representatives of any nature, contractors or subcontractors of each of the **PARTIES** ;
- e) **TECHNOLOGY** : means any result of the **PROJECT** that is subject to appropriation by Industrial Property Law;
- f) **INDUSTRIAL PROPERTY RIGHT**: Set of immaterial rights that apply, under the terms of Law No. 9,279, of May 14, 1996, on the creation of human intellect possessing economic value, characterized by presenting an inventive act or activity, novelty and industrial application.

**CLAUSE TWO – OBJECT:**

The objective of this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** is to establish a regime of mutual technical and scientific cooperation between **UFPEL** and **COMPANY**, with a view to the joint development of the Innovation Stimulation Project entitled “**EVALUATION OF THE EFFECTS OF PANOMATRIX ACTIVATED NANOCELLULOSE ON HEALTHY AND DAMAGED SKIN OF MICE: PRE-CLINICAL STUDIES**”, registered as Action nº 28228 of the Academic Project “**EVALUATION OF THE EFFECTS INDUCED IN THE SYNTHETIC COMPOUND MATRIX ON HEALTHY AND DAMAGED SKIN IN CAM UNDONGOS**”, registered in the **UFPEL** Academic System (COBALTO) under number 6521, hereinafter referred to as simply **PROJECT**.

**SINGLE PARAGRAPH.** The **PROJECT (Annex I)** and the respective **WORK PLAN** are part of this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION. (Annex II)**, which detail the object, the form of execution, the schedule of steps and/or phases, the activities, goals and indicators of the respective operational and/or financial execution and other pertinent data.

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**THIRD CLAUSE – OBLIGATIONS OF THE PARTIES:**

Obligations common to all **PARTIES** are :

- a) be responsible for the veracity of the information provided;
- b) designate the **PERSONNEL** responsible for representing and/or participating, on its behalf, in the execution, management, supervision and/or conduct of work on the **PROJECT** , informing the other **PARTIES** of any and all changes in **PERSONNEL** that occur during the term of this **AGREEMENT** ;
- c) keep the other **PARTIES** informed about the progress of the **PROJECT stages** carried out under their responsibility, sending periodic reports as set out in the **WORK PLAN schedule** or at the request of some other **PARTY** ;
- d) allow access to **PERSONNEL** eventually designated by the other **PARTIES** , as well as third parties, their guests, in the areas used for the conduct, execution and/or management of work related to the object of this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** , to monitor, supervise and/or carry out activities provided for in the **WORK PLAN** , as long as they are duly authorized;
- e) participate in meetings with representatives of other **PARTIES** to discuss the implementation and results of stages, tests or issues of the **PROJECT** in general;
- f) observe all legal standards, including those of an administrative nature, applicable to the implementation of the purpose of this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** ;
- g) carry out the analysis of the results obtained, individually and/or jointly with the other **PARTIES** ;
- h) collaborate for the dissemination and/or publication of new knowledge eventually developed in the **PROJECT** , and may jointly publish the results obtained in the work carried out within the scope of this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** , or separately, provided that with prior written authorization of the other **PARTY** , respecting the Secrecy and Confidentiality obligations of **CLAUSE NINE** ;

**3 .1. UFPEL OBLIGATIONS**

Without prejudice to the provisions of the **WORK PLAN** , **UFPEL** will be responsible for:

- a) carry out the development of research and activities under its responsibility, in accordance with the **WORK PLAN** , collaborating in the implementation of the **PROJECT** that is the subject of this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** ;
- b) provide, in a timely manner, the information, technical data, etc., generated by the studies carried out and necessary for the eventual development and implementation of the **PROJECT results in the COMPANY** 's production process .

**3.1.1. Obligations of the UFPEL Representative (PROJECT Coordinator):**

- a) be responsible for planning and coordinating activities, as well as requests for possible purchases/per diems, taking into account the term of the **AGREEMENT** , as well as **UFPEL 's internal deadline** and the control and entry of expenses actually

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implemented;

- b)** request from the responsible sector the purchases necessary to achieve the **PROJECT** , in accordance with the **WORK PLAN** , and authorize their respective payments, being responsible for the relationship of the product and/or service requested with the object of the **PROJECT** , including any indication of brand and /or supplier, as well as the certification of contracted goods and services, to be carried out by the **UFPEL** Electronic Information System - SEI or in person;
- c)** prepare the public selection process for the selection and training of potential scholarship holders, being responsible for:
- I** - by choosing the scholarship holders, either through the selection process, or by indicating the scholarship holders to the technical team, and the relationship of their theses and/or dissertations with the **PROJECT** ;
  - II** - through the scholarship holder's relationship with **UFPEL** ;
  - III** - for the activities carried out by the scholarship holder and their relationship with the object of the **PROJECT** , aware that the scholarship is strictly of an academic nature, and the provision of administrative, maintenance or permanent work by **UFPEL is prohibited by the scholarship holder** ;
  - IV** - for the workload performed by the scholarship holder, aware that they cannot exceed the limit of 20 hours per week if they are an active federal employee;
  - V** - for supervising the scholarship holder during their scholarship contract and managing performance reports;
  - VI** - for the authorization or rejection of scholarship payments.

**SINGLE PARAGRAPH.** In the absence and/or impossibility of the **PROJECT Coordinator**, the **Deputy Coordinator** will act as **UFPEL Representative** .

### **3 .2. COMPANY OBLIGATIONS**

Without prejudice to the provisions of the **WORK PLAN** , the **COMPANY** will be responsible for:

- a)** ensure the carrying out of the activities under their responsibility in the work, in accordance with the **WORK PLAN** , collaborating in the implementation of the **PROJECT** that is the subject of this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** ;
- b)** provide, in a timely manner, the information, technical data, etc., necessary for the development of the steps described in the **PROJECT** and the **WORK PLAN** ;
- c)** make available the necessary resources, services and/or infrastructure, when foreseen, to carry out the activities covered by this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** under the conditions, quantities, quality and deadlines defined in the **WORK PLAN** .
- d)** provide the new Tagua nut/almond activated nanocellulose formulations for the study.

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**CLAUSE FOUR – RESOURCES**

The economic, non-financial resources necessary for the development of the **PROJECT** will be contributed and spent as detailed in the **WORK PLAN** , without any financial transfer between **UFPEL** and **COMPANY** .

**CLAUSE FIVE – REPRESENTATION**

The **PARTIES**, herein, indicate their respective **REPRESENTATIVES** for the execution of this **AGREEMENT** , who will be responsible for: (a) facilitating the activities necessary for the execution of this **AGREEMENT** ; (b) monitoring and monitoring compliance with obligations and deadlines set out in the **WORK PLAN** ; and (c) negotiation of any changes, adjustments and corrections to the **WORK PLAN** that prove necessary.

**a) Representative of UFPEL**

**I - PROJECT Coordinator**

**Name:** Ethel Antunes Wilhelm

**Email:** ethelwilhelm@yahoo.com.br

**Telephone:** ( 53) 9996-4285

**Address:** Avenida Eliseu Maciel, 2615, casa 61. Jardim América, Capão do Leão/RS.

**II - Deputy PROJECT Coordinator:**

**Name:** André Ricardo Fajardo

**Email:** drefajardo@gmail.com

**Telephone:** (53-99911-0618

**Address:** Center for Chemical, Pharmaceutical and Food Sciences/ LaCoPol

**b) COMPANY Representative:**

**Name:** Javier Carvajal, / Jeffrey Spitzner

**Email:** [jeff.spitzner@amperand.com](mailto:jeff.spitzner@amperand.com)

**Telephone:** 614.325.2103

**Address:** 311 KENDALL PL, COLUMBUS, OH 43205

**5.1.** All communications and notifications made between and/or the **Representatives** must be made in writing, to the people and through the addresses, telephone numbers and/or e-mails indicated in the item above, by post, fax and/or e-mail accompanied by the corresponding proof of receipt.

**5.2.** In the event of a change in the indication and/or address of any of the **Representatives** , such change must be immediately notified to the other **PARTIES** , **with communications, notifications and summons sent to the Representative** and/or previous address within 5 (five) being considered valid and effective. ) days after receipt of the notification, communicating such change.

**CLAUSE SIX – COMPENSATION**

Each of the **PARTIES** shall indemnify, defend and hold harmless the other **PARTY** and their

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respective partners, directors, directors, counselors, servants, employees or representatives with respect to all losses, claims, responsibilities, losses, damages and expenses of any nature (including legal fees) that may be caused by, but not limited to, non-compliance with labor, social security, social security or accident insurance obligations arising from labor claims related to the execution of this agreement or any non-compliance, by the **PARTY**, with any declaration or obligation provided for in this agreement, mainly, the confidentiality obligation provided for in **CLAUSE NINE**.

**6.1.** Without prejudice to the other provisions of the **AGREEMENT**, in the event that one or more **PARTIES** are sued - “ **Respondent Party(ies)** ” - at the judicial or administrative level, in any actions, proceedings or demands, including, but not limited to, compensation actions, environmental claims, labor, social or social security claims, claims relating to intellectual property, among others, by authorities, agencies, government entities or bodies, employees, agents, contractors, consultants, creditors of one of the **PARTIES** and/or any third party directly or indirectly related to the activities carried out by one of the **PARTIES** - “ **Defaulting Party(ies)** ” - or related thereto:

- a)** the **PART defaulter** undertakes to intervene immediately in said demands, undertaking to formally claim the status of defendant/demand/respondent, and immediately request, to the judge or competent authority, as the case may be, the exclusion of the **PARTY(ies)** defendant(s) of the respective demand;
- b)** the **parts defendants** are expressly authorized, by this contract, to denounce the **PARTY to the dispute defaulter**, who will assume the Demand immediately, bearing all expenses inherent therein, including reimbursing the **PARTIES defendants** from any and all expenses that they may incur as a result of or related to the demand; It is
- c)** the **PART defaulter** undertakes to: (i) provide the necessary amount, in advance, so that the **PARTIES defendants** pay any charges directed to them and/or; (ii) fully reimburse the **defendant PARTIES** for the full amount to which they depend, for whatever reason, including, but not limited to, sentencing expenses and legal fees, within 5 (five) days from the notification sent by the **PARTIES defendants** to the **PARTY default** in this regard. The reimbursement will comprise any and all amounts paid by the defendant **PARTIES**, including interest, monetary adjustments made by the IGP-M/FGV (or, in the case of its extinction, by the one that replaces it), procedural costs and expenses, and other expenses.

**CLAUSE SEVEN – TERM, RESOLUTION, TERMINATION AND CONTRACTUAL TERMINATION**

The term of validity of this agreement will be **48 (forty-eight) months**, counting from the date of publication of the respective extract in the Official Gazette of the Union (DOU), and may be extended, from then on, by consensus of the **PARTIES**, except if resolved, terminated or terminated in advance, under the conditions set out in this agreement.

**7.1.** The **PARTIES** may terminate the agreement early, in the following cases:

- a)** **RESOLVE** for non-compliance with contractual obligations by one or more **PARTIES** - “**Defaulting Party(ies)**” not remedied within 30 (thirty) days from receipt of notification from the other **PARTY(ies)** ;
- b)** **TERMINATE** in the face of changes in existing laws or regulations applicable to the

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**AGREEMENT** , promulgation of any pertinent law or regulation or change in the interpretation, by any court, tribunal or regulatory authority with competent jurisdiction, of any pertinent law or regulation, which renders illegal or prohibits the fulfillment or observance, by either **PARTY** , of any provision of the **AGREEMENT** that cannot be changed and/or replaced without prejudice to its due execution;

- c) **TERMINATE** by mutual agreement, by signing the respective termination or consensual termination term;
- d) **TERMINATE** at the initiative of one or more **PARTIES** , upon prior notice of 60 (sixty) days to the other **PARTY(ies)** , with the withdrawing **PARTY(ies)** losing the right to reimbursement of any resource that has been contributed and executed in the **PROJECT** , as well as indemnifying the other **PARTY(ies)** for any disbursement made to carry out future activities, as well as proven losses and damages that they have or will suffer due to the early termination of the **PROJECT** .

**§ 1.** In the event of **TERMINATION** by unilateral initiative of the **COMPANY** , the **COMPANY** will be obliged to pay any obligations to reimburse financial resources that have been contributed to the **PROJECT** by third parties, in particular by **EMBRAPPI** or by another company and/or development agency, whose contribution was originally present the obligation to refund in case of withdrawal or non-compliance, for any reason, with the target or delivery set out in the **WORK PLAN** .

**§ 2.** UFPEL may **unilaterally TERMINATE** this instrument immediately, regardless of other applicable legal measures, if falsehood or fraud in the information and documents presented by the **COMPANY** is found at any **time** .

**7.2.** In the event of early termination of the **AGREEMENT** , for any reason, the **PARTIES** will enter into the respective termination, in which outstanding issues will be resolved.

**7.3.** The term of validity of this agreement does not affect the term of protection of industrial property applicable to the **TECHNOLOGY** resulting from it, which may be developed as part of the **PROJECT** , whose applicable clauses, in particular Clauses Eight and Nine, will remain in force for the term of validity of the protection afforded by applicable legislation.

**7.4.** For the purposes of interpreting this **AGREEMENT** , post-contractual obligations are considered to be those that are incompatible with the termination of this **AGREEMENT** , including, but not limited to, obligations relating to intellectual property levied on the **TECHNOLOGY** and the results of the **PROJECT** , as well as the obligations of secrecy and confidentiality, obliging the **PARTIES** to respond and bear, irrevocably and irreversibly, in full and in full, for any losses and damages, direct and indirect, personal, moral or material, including legal costs and legal fees, which may cause to the other **PARTIES** and/or third parties by virtue of this **AGREEMENT** , during the period specifically provided for in each clause or for the entire individual limitation period of each obligation in accordance with Brazilian legislation.

#### **CLAUSE EIGHT – INTELLECTUAL/INDUSTRIAL PROPERTY AND USE OF RESULTS**

Any information, technologies and materials, including, but not limited to, market, technical and commercial information, product and process technologies, patents, biotechnology,

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microorganisms, computer programs, procedures and routines, that prior to the beginning of this **AGREEMENT** , were the property of one of the **PARTIES** and that were revealed to the other **PARTY** to support the execution of the research and development work necessary for the implementation of the **PROJECT** , will continue to belong exclusively to the **PARTY** and/or third party holder of them, and the other **PARTIES** may not assign, transfer, dispose of, disclose or use them in any other projects or in any other way without the prior written consent of their owner. **SINGLE PARAGRAPH.** The **PARTIES** acknowledge that **PanoMatrix** is the holder of Intellectual Property related to new preparations and formulations of purified Ivory Palm (Tagua) nut nanocellulose emannan (collectively, Tagua Nut Hydrolysates) for skin tissue repair, including, but not limited to healing of wounds, dermatitis, burns and diabetic ulcers through patents granted and/or pending in the United States, Ecuador and the European Union. It should be understood that **PanoMatrix** will own any new intellectual property that derives from or improves on its current intellectual property and inventions, and that UFPel owns any intellectual property that derives from or improves on its existing intellectual property and inventions, which includes, but does not is limited to certain methods for studying wound healing in mice and their models.

**8.1** The **RESULTS** obtained and/or developed within the scope of this **PROJECT** , as well as the documents, reports, tests, analyzes and other data and information, which have been produced in view of the activities carried out in the **WORK PLAN** and which **ARE NOT** subject to appropriation by any type of **INDUSTRIAL PROPERTY RIGHT** , they will be for common use by the **PARTIES** , who may use them, jointly and/or separately, without the need for authorization or notification to the other **PARTY** , except in that which involves issues of **SECRECY AND CONFIDENTIALITY** , under the terms of **Clause Nine** , safeguarding the notification obligation and the need for prior authorization from the other **PARTY** , with the indication of source and joint authorship, in the case of public disclosure of any **RESULT** .

**8.2** In the implementation of this **AGREEMENT** , any processes, products or creations that may have industrial application and that may be subject to appropriation by any type of **INDUSTRIAL LAW** derived or developed during the course of the **PROJECT** , including, but not limited to patents, inventions or utility models, improvements, industrial designs, *know-how* , whether or not subject to registration with the National Institute of Industrial Property – INPI or any other equivalent body, national or international) will be shared ownership between the **COMPANY** and **UFPEL** (co-ownership) in equal proportion ;

**8.3** As **CO-HOLDERS** of all **INDUSTRIAL PROPERTY RIGHTS** applicable to the **TECHNOLOGY** and other **RESULTS** of the **PROJECT** , **COMPANY** and **UFPEL** will cooperate to take, jointly, the necessary measures for their protection, including making records and/or deposits in bodies such as the National Institute of Industrial Property - INPI and similar entities, in Brazil and/or abroad.

**8.4.1** Costs related to writing, depositing or registering and monitoring, as well as protection, maintenance, management or other similar applicable measures, relating to invention patent applications and/or other Industrial Property assets, perhaps resulting from the development of the **PROJECT** and its respective **WORK PLAN**, will be the responsibility of **UFPEL** and the **COMPANY** , in equal proportion, with the **PARTY** that makes disbursements for the benefit of the other having the right to receive proportional



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amounts from the other **PARTY** or deduct such amounts from any *royalties* due .

**8.4.2** Expenses related to the extension of intellectual/industrial protection levied on **TECHNOLOGY** and other **RESULTS** of the **PROJECT** to other countries, cannot be supported by the resources contributed to the execution of this **PROJECT** , and the **PARTIES** , if they are interested, must negotiate and sign between themselves, a specific agreement for this purpose.

**8.5.** The **COMPANY** is guaranteed the **RIGHT OF PREFERENCE** for economic exploitation, **EXCLUSIVELY** , over all **INDUSTRIAL PROPERTY RIGHTS** levied on **TECHNOLOGY** and other **RESULTS** of the **PROJECT** , **throughout the NATIONAL TERRITORY** , through an agreement to pay **ROYALTIES** to **UFPEL** , to be formalized in a specific legal instrument for this purpose, without prior bidding and publication of a Public Offer, in accordance with Article 6, § 1-A of Law No. 10,973/2004.

**§ 1.** For the purpose of calculating *Royalties* , “*net income*” is considered to be the gross value earned from the commercial exploitation of the **TECHNOLOGY**, deducting taxes levied on the sales operation and the amounts relating to canceled sales, duly proven.

**§ 2.** If the **COMPANY** , in an unjustified manner, does not exploit or license to third parties the Intellectual/Industrial Property asset(s) resulting from this **PROJECT** , within a maximum period of 4 (four) years, counting from the first registration protocol and/or deposit, you are obliged to transfer any Property Rights/Title you hold to **UFPEL** .

**8.6.** If the **COMPANY** chooses, through written notification addressed to **UFPEL** and signed by its legal representative, to waive the **RIGHT OF PREFERENCE** on the exploitation of **INDUSTRIAL PROPERTY RIGHTS** , or does not exercise it within a maximum period of 2 (two) years, counting of the first registration and/or deposit protocol, the **PARTIES** , by mutual agreement and in writing, are authorized by **UFPEL** to carry out, in its own name and/or on behalf of the **COMPANY** (when applicable), the licensing to third parties.

**8.7.** The **PARTIES** will define in a specific legal instrument the conditions for the economic exploitation of **INDUSTRIAL PROPERTY RIGHTS** , including in the event of licensing or transfer to interested third parties, as well as direct and exclusive exploitation (or not) by the **COMPANY** , guaranteed, in the silence of the **PARTIES** or in the absence of agreement on possible changes, the values and conditions defined in items **8.5** and **8.6** .

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**CLAUSE NINE – SECRECY AND CONFIDENTIALITY**

The **PARTIES** undertake not to disclose without authorization and not to misuse information that is revealed, by any means (written, verbal, graphic, digital, etc.) from one **PARTY** (“ **Informing PARTY** ”) to the other **PARTY** (“ **Informed PARTY** ”) by virtue of this **PROJECT** and also data and information about the results achieved, including, but not limited to, *know-how* , information regarding products, inventions, operations, methodologies, systems, data, designs, processes, reports, plans or intentions, designs, industrial secrets, commercialization opportunities, financial or business matters, which are considered, for the purposes of this agreement, as “**Confidential Information**” .

**9.1.** The **PARTIES** must treat confidentially and maintain the secrecy of any “**Confidential Information**” , not transmitting such information to third parties and using it exclusively to comply with this agreement, legal, accounting, regulatory requirements or court decisions, being obliged to:

- a)** maintain the strict confidentiality and secrecy of “**Confidential Information**” , granting access only to its **PERSONNEL** who have a proven need for knowledge to carry out the **PROJECT** and/or execution of this **AGREEMENT** , committing to inform them about the existence and terms of this Clause Ninth;
- b)** use the “**Confidential Information**” only to carry out the **PROJECT** and/or execute this **AGREEMENT** , not allowing its use for any other purpose, except in cases where the **Informing Party** expresses its prior, specific and written consent, on paper letterhead and signed by the directors of the **Informing Party** ;
- c)** protect and safeguard the confidentiality of “**Confidential Information**” according to updated and sophisticated information security standards;
- d)** notify the **Informing Party** , in writing, within 24 (twenty-four) hours after becoming aware, of the discovery of any unauthorized loss, disclosure or use of the “**Confidential Information**” by you, your **PERSONNEL** and/or third parties;
- e)** not make or allow copies to be made of the “**Confidential Information**” , unless previously authorized, specifically and in writing, by the **Informing Party** .

**9.2.** It will not be considered as “**Confidential Information**” that:

- a)** are or become generally known to the public without breaching any obligation owed to the **Informing PARTY** ;
- b)** are known to the **INFORMED PARTY** before their disclosure by the **INFORMING PARTY** , without breaching any obligation owed to the **INFORMING PARTY** ;
- c)** are developed independently by the **INFORMED PARTY** , without disrespecting any obligation owed to the **INFORMING PARTY** ; or
- d)** are received through a third party, without breaching any obligation owed to the **INFORMING PARTY** .

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§ 1. The mere disclosure of the existence of this agreement, who the contracting parties are, the title and public summary, the general objectives of the respective registered research project are not subject to **Legal Secrecy** and will not be considered as **“Confidential Information”**. in the Academic System of UFPEL - COBALTO, as well as the respective extract published in the Official Gazette of the Union - DOU, information that may be used, among other purposes, for institutional or legal disclosures of the **PARTIES** or any funding body or organization that is financing or supporting, in whole or in part, this **PROJECT** .

§2º. The **PARTIES** are authorized to disclose their names (trade name or company name), as well as the title and public description of the **PROJECT** , to the other **PARTIES** , without the need for prior authorization in each case of use.

9.3. Each of the **PARTIES** will be responsible for complying with the secrecy and confidentiality obligations of the personnel at its service and of any other people or entities that, by virtue of this, are linked to the execution of this **PROJECT** , and have had access to **“Confidential Information”** . In this sense, the **PARTY** must require its employees, agents, subcontractors and any others involved with the execution of this contract to previously sign a **Confidentiality Agreement or Commitment**, containing confidentiality clauses as set out in this agreement and assumed by the **PARTY** .

9.4. Any revelations, communications, notices or advertising to the media in relation to the content expressed in the **PROJECT** or in the **WORK PLAN** must be coordinated and approved in advance and in writing by the **PARTIES**. In the event of interest in the disclosure or publication of information on the aforementioned content by either **PARTY** , the other **PARTY** must be consulted in writing, with a period of 60 (sixty) days for response and action, counting from receipt of the draft communication , notice or advertising. Refusal must be expressly justified. Failure to respond within 60 (sixty) days will be interpreted as consent for disclosure and/or publication.

9.5. The **PARTIES** must ensure that the disclosure, communication, notice or publicity does not harm the **INDUSTRIAL PROPERTY RIGHTS** provided for in this **AGREEMENT** , and that the confidentiality and licensing conditions contained in this instrument are complied with in relation to other **“Confidential Information”** .

9.6. The **Informed PARTY** will notify the **Informing PARTY** within 48 hours if it becomes aware of any real or reasonable suspicion of breach of confidentiality of the **Informing PARTY** 's **“Confidential Information”** .

9.6.1. If required by law or court order to reveal **“Confidential Information”** of the **Informing PARTY** , the **Informed PARTY** must provide the **Informing PARTY** with prior notice of such compulsory disclosure within 48 hours, counting from receipt of the subpoena.

9.6.2. If the **Informed PARTY** reveals any **“Confidential Information”** , violating the

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confidentiality protections established here, the **Informing PARTY** may immediately terminate this contract and will be entitled to be compensated for the corresponding damages, in accordance with applicable legislation.

**9.7.** Failure by either **PARTY to comply** with the commitment assumed in this **CLAUSE NINE** will result in the obligation to pay compensation for losses and damages suffered by the **PARTY** affected by the breach of confidentiality, as well as any other remedies that assist the innocent **PARTY** under the terms of this agreement or law, including, without limitation, the requirement of specific performance.

**9.8.** This **CLAUSE NINE** will remain in force for a period of **24 (twenty-four) months after** the end of the execution of the **PROJECT WORK PLAN** , while the **“Confidential Information”** remains restricted knowledge.

**9.9.** UFPEL , as a public institution, has the legal duty to publish an Extract of this **AGREEMENT** in the Official Gazette of the Union and/or on its website, such publications not being considered a breach of the legal duty of Secrecy and Confidentiality.

**9.10.** Access to public authority audit and control bodies is ensured, to Project information for the purposes of monitoring and auditing its results, including information classified by the **PARTIES** as **“Confidential Information”** , whenever requested and as long as the procedures are respected. adopted by the **PARTIES** to access information and to guarantee the maintenance of Confidentiality over them, such as the requirement to sign a Confidentiality Commitment Term, among other applicable measures.

**CLAUSE TEN – PROTECTION OF PERSONAL DATA**

The **PARTIES** undertake to act in accordance with Law No. 13,709/2018 and the determinations of the respective regulatory and supervisory bodies, being responsible for any losses and damages that they may cause to any of the other **PARTIES** , their employees, suppliers, third parties, among others. , without prejudice to other applicable legal sanctions, as follows:

- a)** the processing of personal data will take place in accordance with the legal bases provided for in the hypotheses of arts. 7th, 11 and/or 14 of law no. 13,709/2019, to which the services will be subject, and for legitimate, specific and informed purposes to the holder;
- b)** the systems that will serve as the basis for storing the personal data collected follow a set of premises, policies, technical specifications, and must be aligned with current legislation and best market practices;
- c)** The data obtained as a result of the purpose of this contract will be stored in a secure database for up to 5 (five) years from the date of approval of the Project accounts, with a guarantee of recording of transactions carried out in the access application, adequate control based on function and with transparent identification of the profile of those accredited, all established as a form of guarantee, and sharing this data with third parties is prohibited;
- d)** It is up to the **Project Coordinator (UFPEL)** to inform the members of the **PROJECT team** that their data will be displayed on the **UFPEL website** , due to legal determination by the

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public authorities, aiming at the transparency of contracts and agreements, including the CPF, proof of title and proof of registration;

- e) Any responsibilities of the **PARTIES** will be determined as established in this contract and also in accordance with the provisions of Section III, Chapter VI of the LGPD.

**10.1.** The **PARTIES** must maintain a record of the personal data processing operations they carry out, as a result of this contract, as well as implement technical and organizational measures necessary to protect data against illicit destruction, loss, alteration, communication, dissemination or unauthorized access, in addition to ensuring that the environment used to process personal data is structured in such a way as to meet security requirements, standards of good governance practices and the general principles set out in legislation and other applicable regulatory standards.

**10.2.** Either **PARTY** shall notify the other(s) of complaints and requests from holders of personal data that it may receive, as well as orders arising from court decisions, public authorities and competent regulators, and any other exposures or threats in relation to data protection compliance.

**10.3.** Either **PARTY** must notify the other(s) within 24 (twenty-four) hours of: (i) any non-compliance, even if suspected, with the legal provisions relating to the protection of personal data; (ii) any failure to comply with contractual obligations relating to the processing and processing of personal data; and (iii) any security breach within the scope of its activities.

**10.4.** Each **PARTY** undertakes to assist the other(s) with their respective judicial or administrative obligations, in accordance with data protection law, by providing available relevant information and any other assistance to document and eliminate the cause and risks imposed for any security breaches.

**10.5.** The **PARTIES** do not authorize the transfer or sharing, free or paid, of any data that originates or is obtained from the processing of personal data established as a result of this contract.

**10.6.** The **PARTIES** are authorized to share the personal data processed and transferred between them, with other data processing agents or operators, if necessary for the purposes listed in this contract, all in compliance with the principles and guarantees established by Law No. 13,709/2018 .

**10.7 .** The legal representatives of the **PARTIES** , as holders of their personal data and subscribers to this instrument, register their free, informed and unequivocal statement, agreeing and authorizing the availability and processing of their personal data between the **PARTIES** .

**10.8.** In relation to the personal data of third parties, if necessary to fulfill the purpose of this contract, passed on by one of the **PARTIES** to the other, the latter undertakes and declares that they were and will be collected, processed and transferred with the full and specific consent of

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their respective holders, and in compliance with Law No. 13,709/2018, committing, in the event of a request for rectification, partial or full exclusion or revocation of the consent form, by the respective holders thereof, to immediately inform the other party, so that they can adopt legal measures.

**10.9.** The **PARTIES** are authorized to process and make decisions regarding personal data provided by partners, shareholders, legal representatives, employees or third parties passed on by any of the **PARTIES**, including full name, date of birth, card number and image identity, number and image of the Individual Taxpayer Registry, marital status, level of education or education, full address, telephone numbers, email addresses, check registration, when applicable, all information and data eventually contained in contracts social and operating license(s) of company(ies) in which the holder appears as partner, shareholder or legal representative, all information and data possibly contained in judicial and extrajudicial certificates issued in his name or in the name of the company in which he appears as partner, shareholder or legal representative and any other documentation and data that may be necessary for the purposes of execution and analysis of this contract, during and after the legal relationship, in compliance with the regular exercise of rights, the respective statute of limitations, the obligation legal and meeting the legitimate interests of the **PARTIES** or third parties.

**CLAUSE ELEVEN – ENVIRONMENT**

The **PARTIES** will be responsible for complying with laws and regulations pertinent to environmental protection, including obtaining and validly maintaining all licenses, authorizations and studies that may be required for the full development of their activities, in accordance with requirements contained in federal, state and that deal or will deal with environmental matters, in accordance with the responsibilities individually assumed here.

**11.1.** For the purposes of this **AGREEMENT**, the term environment covers public health, urban planning and environmental administration.

**11.2.** The **PARTIES are responsible** for adopting the appropriate measures and procedures, in order to eliminate any aggression, danger or risk of damage to the environment that may be caused by activities involving the **PROJECT**, object of this agreement, with the guilty **PARTY being** responsible for any sanctions imposed by environmental standards for any damage caused to the environment resulting from the exercise of its activities or accidents of any nature, and must compensate the innocent **PARTY** for any damages that may be incurred as a result of this contract.

**11.3.** No civil, criminal or administrative liability may be attributed to the other partner by extension or solidarity, due to work accidents, environmental or consumer damage and unlawful acts that give rise to civil, criminal or administrative liability.

**11.4.** Responsibility for environmental damage caused or arising during the term of this **AGREEMENT** and any extensions will remain even if its effects are known or occur after the

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termination of the adjustment.

**CLAUSE TWELVE – STAFF**

The **PERSONNEL** employed in the execution of the activities inherent to this agreement will remain with the same connection to their original ties.

**12.1** . Each of the **PARTIES** shall be responsible for all labor, social security, civil and tax charges, including work accidents of its contracted **PERSONNEL** , civil servant and/or employee, as well as for insurance and possible legal obligations towards students, interns, scholarship holders , subcontractors and/or outsourced parties with whom they maintain a relationship in view of the execution of the purpose of this **PARTNERSHIP AGREEMENT FOR RESEARCH, DEVELOPMENT AND INNOVATION** ;

**12.2.** Each of the **PARTIES** must be responsible for the acts and/or omissions carried out by its **PERSONNEL** , as well as for the damages that they may cause, through negligence or willful misconduct, to the other **PARTIES** , as a result of the execution of the **PROJECT** ;

**12.3.** THE **PARTIES** must respect and ensure that their **PERSONNEL** complies with occupational safety standards and other regulations in force in the places where they are working;

**12.4.** The people who will participate in the execution of the **PROJECT** will be listed in the **WORK PLAN** , with a description of the activities to be developed and their respective workloads.

**12.5.** If undergraduate students participate in activities linked to the mandatory stage of completion of the course, **UFPEL will be responsible** for contracting accident insurance in favor of the student as determined in Article 50, item VIII, of resolution No. 14 of 28 October 2010 from COCEPE.

**CLAUSE THIRTEENTH – ACCOUNTABILITY**

Every 6 (six) months, counting from the Publication of the Extract of this **AGREEMENT** in the Official Gazette of the Union - DOU, the **UFPEL Representative is responsible** for preparing the corresponding **“Partial Report”** , to be attached to this **AGREEMENT** and which will become part integral and inseparable from the present, through which the following are recorded:

- a) the progress achieved and the difficulties encountered in each of the stages, certifying the achievement of the intended goal/delivery or justifying, if any, its failure to be achieved;
- b) the **CONTRIBUTIONS** and disbursements made by the **PARTIES** ;
- c) any necessary adjustments to the **WORK PLAN** , which will only be implemented through an express agreement between the **PARTIES** formalized through an **Addendum** to this **AGREEMENT** ;

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**13.1.** The **UFPEL Representative** must attach to the **FINANCIAL STATEMENT** , when requested, documentation proving the incorporation of the asset into **UFPEL 's assets** .

**13.2.** After completion of the **PROJECT** , the **Representatives of the PARTIES** must complete the **ACCOUNTABILITY** , through the preparation of a “**Final Report**” , complete and detailed, of observations and results of the **PROJECT** , which must contain, among other data and information that the **COMPANY** and **UFPEL** consider the following information to be relevant:

- a)** the title of the **PROJECT** ;
- b)** the objective of the **PROJECT**;
- c)** the **PROJECT summary** ;
- d)** the materials and methods used in the **PROJECT** ;
- e)** the results found in the **PROJECT** ;

**CLAUSE FOURTEENTH - GENERAL PROVISIONS**

If any of the provisions of this **AGREEMENT** is declared invalid, null or voidable, this fact will not affect its other provisions, which will remain in full force and effect, and the **PARTIES must** negotiate, in good faith, a way to replace the declared provisions invalid, null or voidable, by others that, as far as possible, reasonably achieve the purposes and effects of the original provisions.

**14.1.** The omission, non-exercise or tolerance by either **PARTY** in not demanding strict compliance with the terms or conditions of the **AGREEMENT** will be considered an act of mere liberality and will not constitute novation or waiver of the rights established herein, which may be exercised fully and in full, anytime.

**14.2.** This **AGREEMENT** and its annexes They can only be changed in writing, upon signature of the respective **Addendum** , formalizing the will of the **PARTIES** , which can only deal with changes to deadlines, values and other operational adjustments that are necessary to achieve the objectives of the **PROJECT** , and changes are prohibited. of its purpose, either by changing the Object of this **AGREEMENT** or the main Objective of the **PROJECT** .

**Single paragraph.** Changes in value and/or term caused by unpredictable facts or situations, such as changes in market prices and climate changes, among other situations beyond the control of the **PARTIES** , whose impact is up to 20% (twenty percent) over the deadline and/or value initially agreed and that do not exceed the final term of the project and this agreement, and any differences must be justified in the financial report.

**CLAUSE FIFTEEN - JURISDICTION**



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All disputes arising from this agreement, which cannot be resolved amicably, may be resolved administratively in the Conciliation and Arbitration Chamber of the Federal Administration - CCA and, judicially, the Federal Court of Justice of the 4th Region - Section Judiciary of Pelotas – RS, with express waiver of any other, however privileged it may be, to resolve any issues relating to this agreement.

And, as they are thus fair and contracted, the **PARTIES** sign this **AGREEMENT**, and, in accordance with art. 10, § 1 of Provisional Measure No. 2,200-2/2001 and article 219 of the Civil Code, the **PARTIES** declare the digital signature of this instrument to be valid and accepted, declaring the authenticity of the authorship of the signatures.

Signed by:

*Jeffrey R Spitzner*

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Jeffrey R. Spitzner

CEO

Panomatrix, LLC

Assinado por:

*Isabela Fernandes Andrade*

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Isabela Fernandes Andrade

Rector

Federal University of Pelotas

## WORK PLAN

## 1 – REGISTRATION DATA

## 1.1 - UNIVERSITY

<b>Organization/ Proposing Entity</b> FEDERAL UNIVERSITY OF PELOTAS				<b>CNPJ</b> 92.242.080/0001-00
<b>Address</b> Rua Gomes Carneiro, nº 01 – Centro.				
<b>City</b> Pelotas	<b>UF</b> RS	<b>Zip code</b> 96010-610	<b>Telephone</b> (53) 3284-4000	<b>UG / Management Code</b> 154047/ 15264
<b>Name of Legal Representative</b> Isabela Fernandes Andrade				<b>CPF</b> 009.253.840-11
<b>CI / Issuing authority / Issuance</b> 4057579858		<b>Function</b> Dean	<b>Email</b> reitoria@ufpel.edu.br	

## 1.1.1 – COORDINATOR

<b>Name of Project Coordinator</b> Ethel Antunes Wilhelm		<b>CPF</b> 01408163055
<b>Unit/Department/Research Group</b> Center for Chemical, Pharmaceutical and Food Sciences/Biochemical Pharmacology Research Laboratory		<b>UFPEL registration</b> 1946393
<b>Electronic Address (email)</b> ethelwilhelm@yahoo.com.br	<b>Telephone</b> 53-3275-7360	<b>Cell phone</b> 55-99964285

## 1.1.2 – ADJUNT COORDINATOR

<b>Name of Deputy Project Coordinator</b> André Ricardo Fajardo		<b>CPF</b> 05842622998
<b>Unit/Department/Research Group</b> Center for Chemical, Pharmaceutical and Food Sciences/ LaCoPol		<b>UFPEL registration</b> 2110831
<b>Electronic Address (email)</b> drefajardo@gmail.com	<b>Telephone</b> 53-3275-7360	<b>Cell phone</b> 53-99911-0618

## 1.2 - PARTICIPANT

<b>Type</b> Private	<b>2 – Name / Company name</b> PanoMatrix		<b>3 - CNPJ</b> Ohio Articles of Incorporation Number 4875429	
<b>Head office address (Av., Street, No., Neighborhood)</b> 1476 Manning Pkwy, Powell, OH 43065 USA				
<b>City</b> Manning Pkwy	<b>UF</b> OH	<b>Zip code</b> 43065	<b>(DDD) Telephone</b> 614.325.2103	<b>(DDD) Fax</b>
<b>Name of legal representative</b> Jeffrey R. Spitzner				<b>CPF</b> Not applicable

WORK PLAN

<b>CI / Issuing authority / Issuance</b> Not applicable	<b>Function</b> CEO & Founder	
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**2 - PROJECT DESCRIPTION**

<b>Project title</b> <b>EVALUATION OF THE EFFECTS OF SYNTHETIC COMPOUNDS IN THE MATRIX ON HEALTHY AND DAMAGED SKIN IN MICE</b> <b>Action: "EVALUATING THE EFFECTS OF PANOMATRIX ACTIVATED NANOCELLULOSE ON HEALTHY AND DAMAGED MICE SKIN: PRECLINICAL STUDIES"</b>	<b>Execution Period</b>	
	Start July/2024	End July/2028
<b>Amount</b> R\$ <i>DOES NOT APPLY</i>		
<b>Project objective:</b> To evaluate the effect of new synthetic compounds on AD induced by 2,4-dinitrochlorobenzene (DNCB) in mice.  <b>Objective of the Action:</b>  a) To investigate the actions of PanoMatrix' Tagua nut activated nanocellulose formulations on collagen and extracellular matrix production in atopic dermatitis (AD) induced by 2,4-nitrochlorobenzene (DNCB) in mice through scores and scratching behavior. b) To evaluate the protective action of PanoMatrix' novel Tagua nanocellulose formulations against histopathological findings on the ear and skin induced by DNCB. c) To study the effects of Tagua activated nanocellulose formulations on treatments on oxidative stress induced by DNCB on the ear and skin of mice. d) To investigate the effects of the PanoMatrix' activated nanocellulose/mannan formulation on inflammatory parameters, including the activity of the enzyme myeloperoxidase (a marker of tissue inflammation) in the ear and skin of mice. e) To evaluate the effects of the PanoMatrix formulation on collagen and matrix production in healthy and atopic-dermatitis-damaged skin.		
<b>Project justification</b>  Atopic dermatitis (AD) is an allergic, inflammatory and chronic disease that involves an interrelationship between environmental, immunological and genetic factors in addition to skin barrier dysfunction (Udompataikul and Limpa-o-vart, 2012). Clinically, AD is characterized by erythematous and pruritic skin lesions throughout the body that have a strong impact on patients' quality of life (Dalgard et al., 2015). From an epidemiological point of view, AD is a disease that mainly affects children (20%) and 3% of adults (Kim et al., 2014; Nutten, 2015). Furthermore, patients with AD have a hereditary tendency to excessive secretion of antibodies (more specifically immunoglobulin E (IgE)) to various stimuli, such as allergens, emotional stress, variations in temperature and humidity, bacterial infections of the skin, food or tissues, among others. (Amaral et al., 2012).  During the course of AD, dysfunctions of the epidermal and immunological barriers occur. Barrier dysfunction is innate (particularly in keratinocytes and Langerhans cells), with activation of T helper 2 (Th2) lymphocytes. In the acute phase of AD, antigens activate Langerhans (antigen-presenting) cells, beginning as a predominant Th2 lymphocyte response (Peng and Novak, 2015). Furthermore, AD skin lesions are characterized by the overexpression of type 2 pro-inflammatory molecules, such as interleukin (IL)-4, IL-5 (responsible for promoting eosinophil migration) and IL-13 (cell growth inducer) (Heratizadeh and Werfel, 2016). Furthermore, studies demonstrate that IL-18 is also involved in the pathophysiology of AD, increasing the recruitment of eosinophils to the airways and consequently expressing increased levels of IL-4, IL-13 and histamine through basophils and mast cells (Kumano et al. al., 1999; Yoshimoto et al., 2000).  In the chronic phase, interaction occurs between Langerhans cells and macrophages, with the release of IL-1, which stimulates Th2 lymphocytes to produce more IL-4, IL13, IL-5 and histamine-releasing factor (Weidinger, 2006). Furthermore, in relation to the etiology of the disease, it is believed that there is also an association between AD and a genetic alteration (Palmer et al., 2006). The discovery of the association between filaggrin gene (FLG) mutations and AD shed new light on the etiopathogenic mechanisms of the		

## WORK PLAN

disease (Palmer et al., 2006). FLG is a protein responsible for the formation of the stratum corneum, which constitutes the skin's first protective barrier, is important for preventing substances and microorganisms from penetrating the skin, in addition to preventing the loss of vital fluids, being formed and continuously regenerated by keratinocytes, during the keratinization process (Candi et al., 2005). Many patients with AD have defects in the skin barrier, which can facilitate the penetration of allergens, microorganisms and irritating substances, which in turn stimulate the immune response towards a Th2 profile. Support for this theory comes from the discovery of the association of AD with mutations in the FLG gene, a protein essential for the formation and maintenance of the integrity of the skin barrier (Irvine et al., 2011).

In view of the above, one of the most significant problems in patients with AD is excessive itching, since this chronic condition causes the patient to worsen this disease (Hashimoto et al., 2011). One of the most effective therapeutic strategies to improve the quality of life of patients with AD consists of treatments capable of relieving itching associated with pruritus, but unfortunately, because chronic itching conditions have very different etiologies, most treatments have poor results and are accompanied by side effects (Steinhoff et al., 2011). For a long time, topical corticosteroids, such as hydrocortisone, have been considered the basis of pharmacological treatments for AD, but for many patients with this disease in the moderate to severe stages, the effectiveness of topical treatments is limited, and their long-term application leads to side effects (Ring et al., 2012). Furthermore, systemic immunosuppressive drugs for AD are generally more effective than topical treatments, but have a substantial potential for more serious toxic effects (Ring et al., 2012; Sidbury et al., 2014; Roekevisch et al., 2014). Thus, treatment, at best, manages to control symptoms rather than cure them.

Therefore, there is a great need to develop effective treatment and new strategies for AD. The search for new agents that could be effective in AD has intensified in recent years. In fact, the synthesis and biological screening of compounds derived from selenium can be considered a relevant area of research, and their synthesis has already revealed substances with great pharmacological potential, such as: antioxidant, antinociceptive and anti-inflammatory (Pinz et al., 2016; Vogt et al., 2018), anxiolytic (Reis et al., 2017), protection against memory impairment (Da Silva et al., 2017), reduction of skin lesions in an AD model (Voss et al., 2018), among others.

Based on these considerations, this study is motivated by the following factors: i) impact of AD on the quality of life of people with this disease; ii) increase in AD incidence estimates in children and adults; iii) limitation on the use of existing treatments; iv) the need for searching a new treatment capable of treating the disease and not just the symptoms; v) pharmacological potential of selenium compounds; and vi) the need for studies that evaluate AD in relation to its genetic and immunological factors, and epidermal barrier dysfunction.

The action "EVALUATING THE EFFECTS OF PANOMATRIX ACTIVATED NANOCELLULOSE ON HEALTHY AND DAMAGED MICE SKIN: PRECLINICAL STUDIES" is justified by the relevance highlighted above, given the need to search for more effective treatments for skin lesions, such as atopic dermatitis. The study will cover undergraduate and postgraduate students at UFPel, which will contribute to their qualified training in the project area. Through the study, it will be possible to generate scientific and innovative knowledge that will be disseminated through publications in international journals. Furthermore, the project will allow the University to integrate with a foreign company, which will open up new opportunities for innovation.

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**Expected Results** (briefly describe)

Given the experimental design outlined, it is expected to better elucidate the involvement of oxidative and inflammatory markers in atopic dermatitis and associated comorbidities, taking into account the relationship between cutaneous inflammatory processes and the impact at the central level. Furthermore, it is intended to identify a new therapeutic approach for the treatment of this condition, exploring the preparation of nanotechnology-based solid and semi-solid devices to be applied through a strategic administration route for the condition, striving for scientific and technological innovation. With the development of this proposal, the aim is to involve scientific initiation and postgraduate students, generating course completion works, dissertations and theses related to the topic. It is also intended to file patents and publish the results obtained in international scientific journals.

This proposal aims to continue increasing the quality of published articles, contribute to the training of qualified human resources, improve the qualification of young doctors through research in Biochemistry and Bioprospecting, with an emphasis on nanoscience, develop a new therapeutic strategy and consolidate partnerships established with national and international researchers, as well as with the pharmaceutical industry. Furthermore, it is expected that the research to be carried out will contribute to improving the quality of life of patients affected by atopic dermatitis and comorbidities and motivate young scientists to continue worrying about scientific and social issues .

## WORK PLAN

## 3 - EXECUTION SCHEDULE

Order No.		Activities	Physical Indicator		Duration		Price R\$)
Action	Stage	Detailing	Unit	Amount	Start	Termination	
1	-	<i>Evaluation of the effects of panomatrix activated nanocellulose on healthy and damaged mouse skin: preclinical studies</i>	Pharmacological evaluation	1	July, 2024	July, 2028	-
1	1.1	<i>Pharmacological evaluation of materials in preclinical models of skin injuries</i>	Pharmacological evaluation	3	July, 2024	July, 2028	-
1	1.2	<i>Biochemical Analysis</i>	Biochemical Tests	10	July, 2024	July, 2028	-
1	1.3	Technical and scientific visits – PanoMatrix X UFPel (USA x Brazil)	Visits	2	August, 2024	July, 2028	-
1	1.4	Meetings to discuss results	Meetings	9	July, 2024	July, 2028	-
1	1.5	Production of scientific articles/patents	Article/patent	2	July, 2024	July, 2028	-
1	1.6	Human resources training	Degree Completion	2	July, 2024	July, 2028	-
<b>Total</b>							

## WORK PLAN

### 4 - APPLICATION PLAN (R \$ 1.00)

There will be no disbursement of resources from the Federal Government.

### 5 – DISBURSEMENT SCHEDULE (R\$ 1.00)

There will be no disbursement of resources from the Federal Government.

Not applicable

### 6 – REQUEST FOR APPROVAL

As legal representative, I declare for the purposes of proof with the Federal University of Pelotas, for the purposes, under penalties of the law, that there is no outstanding debt or situation of default with the National Treasury or any agency or entity of the Federal Public Administration, which prevents the formalization of this agreement, in the form of this work plan.

Columbus, OH USA 07/18/2024

Place and Date

Signed by:

*Jeffrey R Spitzner*

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Participant

### 7 - UNIVERSITY APPROVAL

As legal representative of the UNIVERSITY, I approve this Work Plan.

Pelotas, BRA 07.19.2024

Place and Date

Assinado por:

*Isabela Fernandes Andrade*

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## WORK PLAN

## ANNEX I - DETAILS OF EXPENSES

There will be no disbursement of resources from the Federal Government.

## ANNEX II - TECHNICAL TEAM

Technical Team									
Name	Institution (link)	SIAPE registration or CPF	Role in the project	Weekly Workload	Form of Remuneration See workload and maximum values allowed, as established in CONSUN Resolution 02/2015				*Goals / Activities
					Hourly rate (R\$)	Total Value (R\$)	Frequency (monthly or full payment )	Duration (months)	
Ethel Antunes Wilhelm	UFPEL - teacher	1946393 (SIAPE)	coordinator	1	Not applicable	Not applicable	Not applicable	Not applicable	Coordinate, participate and supervise project activities.
André Ricardo Fajardo	UFPEL - teacher	2110831 (SIAPE)	Adjunct coordinator	1	Not applicable	Not applicable	Not applicable	Not applicable	Coordinate, participate and supervise project activities.
Ana Paula Bonato Wille	UFPEL - Student	05658626935 (CPF)	Collaborator - Postgraduate student	5	Not applicable	Not applicable	Not applicable	Not applicable	Execute project activities
Jeffrey R. Spitzner	Panomatrix CEO & Founder	Does not apply (foreigner)	collaborator	1	Not applicable	Not applicable	Not applicable	Not applicable	Provide materials for pharmacological tests and supervise the cooperation agreement.
Vanessa Macedo Esteves da Rocha	UFPEL - Student	03578387002 (CPF)	Collaborator - Postgraduate student	5	Not applicable	Not applicable	Not applicable	Not applicable	Execute project activities

**Note: It is mandatory to identify which participants hold public positions, as well as observe all specific legislation regarding the granting of scholarships or any pecuniary advantage to civil servants.**