



AMPARO[®]





AMPARO[®]

Because life is about living.

AMPARO[®] has arrived. The **newest antiviral** is ready to fight the **new coronavirus (COVID-19)**.



COVID19: The problem of the decade.

The pandemic caused by the new coronavirus has already infected more than 3 million people worldwide, according to the United Nations, this is the most challenging global crisis since World War II.

The creation of vaccines and treatments for COVID-19 is a challenge for the scientific community due to its high virulence and transmissibility, characteristics of the new coronavirus, whose genome is highly polymorphic, with about 30 variations, according to a research by Zhejiang University (China). In addition, immunological memory after the first contact with a virus, such as COVID-19 varies in relation to the immunity time, and may fail to protect the patient.



Amparo[®]: A innovative approach

AMPARO[®] is an innovative approach that will interrupt the binding of viral particles to the target tissue or cell by interference before or after the viral adhesion process.

AMPARO®: Antimicrobial Motif Platform for Ameliorate Immune Response Outcomes

Composed of biocompatible nanoparticles functionalized with a recombinant human mannose-binding lectin (rhMBL), they assume a nanostructured platform (AMPARO) capable of binding to various microorganisms with greater avidity, avoiding over-stimulation of the immune response.

Why did we choose to develop this solution?

A photograph of a woman with dark hair, seen from the side, using a white inhaler. She is holding the device to her mouth and appears to be breathing into it. The background is blurred, suggesting an indoor setting.

Immune memory after the first contact with a virus or other microorganism can vary in relation to the immunity time and can also fail to protect the host. Highly specific characteristics of vaccines and some antiviral drugs limit these approaches in some contexts. The most important pandemics are caused by viruses with highly polymorphic genomes or microorganisms with very efficient routes of transmission.

The specific sequence of recombinant human MBL in this formulation is unable to activate the complement system while preserving its ability to bind viruses and bacterial organisms of medical importance. The platform creates a new concept to gain the function of the molecule, modifying its structure using a biocompatible polymeric component.

What are the benefits of Amparo®?



Broad-spectrum antiviral

AMPARO® Can recognize and inhibit various viruses that cause respiratory diseases.



Decreased inflammation

Inhibition of virus replication, preventing stimulation of inflammatory pathways.



Red blood cell protection

When bound to red blood cells, the substance provides stability in the membranes, reducing fragility, protecting them from lysis.



Accurate drug delivery

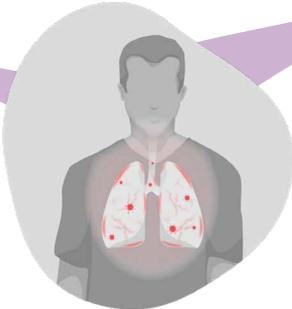
Various sizes of nanoparticles driven by the aerosol will reach different types of mucous membranes, maintaining a controlled release of the substance for a longer period in the body, preventing the degradation of the drug, protecting the patient for longer.



Social Impact

The use of AMPARO® against COVID-19 decreases transmission and attenuates immunological sequelae, reducing the number of simultaneous serious cases and the occupation of hospital beds, preventing the collapse of the health system.

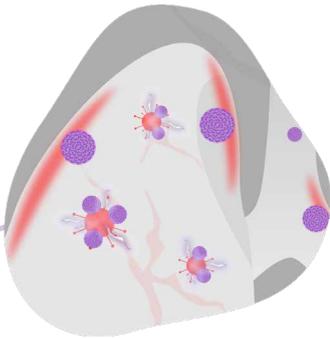
How does Amparo® work?



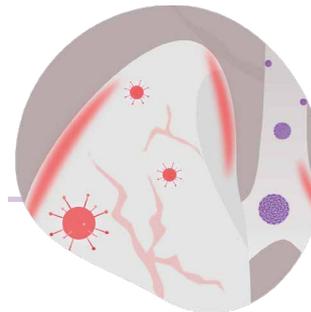
1. The infected patient, when feeling the symptoms, will seek the doctor responsible for its diagnosis and treatment.



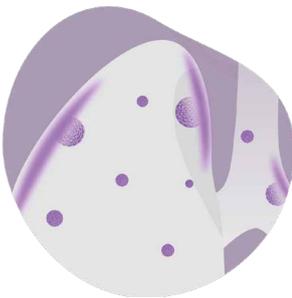
2. After being diagnosed with a respiratory viral infection, the physician will prescribe the use of AMPARO® through an inhaler.



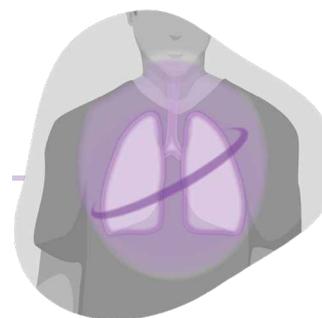
4. The AMPARO® nanoparticles are deposited in the respiratory tissue and fight the viruses that it finds on the way.



3. The active substance composed by the Nanoarray AMPARO® will travel the entire airway.



5. Nanoarray AMPARO® will prevent viruses from continuing to replicate and activate the inflammatory system.



6. The nanoparticle will continue to release the active substance during its time of action, protecting and recovering the patient.

Developing Team

The project has the participation of more than 30 highly specialized biotechnology professionals who are coordinated by the team below:



Dr^a. Patrícia Moura
Science Team Leader
PhD in Biotechnology. Professor at Universidade de Pernambuco/ICB.



Dr. Fábio Formiga
Nanoarray Formulation and Characterization Coordinator
Pharmacist, PhD
IAM-FIOCRUZ/UPE



Dr^a. Juliana Rebouças
Preclinical Tests Coordinator
Pharmacist, PhD. ICB-UPE



Gabriel H. Lins
Project Development Coordinator
Biomedical Scientist, Specialist in Clinical Neurosciences



Dr. Luydson Vasconcelos
Laboratorial Diagnosis Coordinator
Biologist, PhD. IAM-FIOCRUZ



Dr^a. Carinna Lima
MBL specialist Researcher
Biomedical Scientist, PhD UFPE



Dr. Adauto Barbosa
Lab Manager
Biologist, PhD ICB/UPE

Business Director



Joseph Miller
Business Team Leader
International Entrepreneur, Business Director and Founder of Of Joseph PB&T.

Amparo® in the media

The initiative proved to be relevant in renowned media channels.



CLIQUE PARA AQUI

FOLHA de PERNAMBUCO

Quota de 12,74% em 23/09/2020

LEIA O JORNAL

CORONAVÍRUS

Parceria entre UPE e of Joseph PB&T investe em tratamento alternativo para Covid-19

A pesquisa em questão trabalha com uma proteína chamada Lectina Ligadora de Manose (MBL)

Por: Portal Folha de Pernambuco
24/08/2020 às 14:42 | Última atualização em 24/08/2020 às 14:44



Parceria entre UPE e of Joseph PB&T investe em tratamento alternativo para Covid-19

Uma colaboração entre a Universidade Pública de Pernambuco e a of Joseph PB&T que reúne 30 pesquisadoras de diversas instituições, está focada em realizar atividades Pesquisa, Desenvolvimento e Inovação (PDI&I) nas áreas saúde e Estudos de Terapias complementares. Atualmente, o maior investimento da parceria é o desenvolvimento de uma terapia antiviral e atividade anti-inflamatória

Folha de Pernambuco

<https://www.folhape.com.br/noticia/detalhe/parceria-entre-upe-e-ofjoseph-pbet-investe-em-tratamento-alternativo/152444/>



ASSINE POR R\$ 1,90

JC

EDIÇÃO IMPRESSA

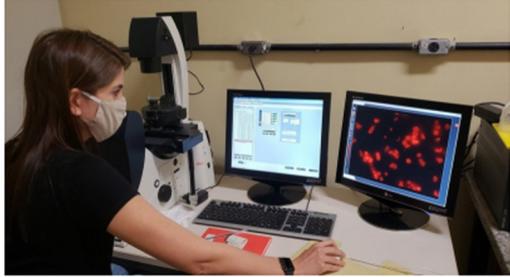
EXCERTA

UPE pesquisa novo remédio como tratamento alternativo para cura da covid-19

A estimativa é de que o produto seja entregue por volta do final deste ano

Denise Oliveira
Publicado em 23/08/2020 às 10:23

COMPARTILHE



Resquisadoras realizam estudo para produzir medicamento que aumenta a capacidade do corpo impedir que o vírus entre no organismo - FOTO: DIVULGAÇÃO

Lectura: 3min

A Universidade de Pernambuco, em parceria com a of Joseph PB&T Brasil, tem realizado pesquisas para desenvolver uma terapia antiviral

Jornal do Comércio

<https://jc.ne10.uol.com.br/pernambuco/2020/08/11967214-up-e-pesquisa-novo-remedio-como-tratamento-alternativo-para-cura-da-covid-19.html>



DIÁRIO de PERNAMBUCO

CONFIRA O JORNAL DIGITAL DO DIA

NOTÍCIA DE LOCAL

Parceria entre a UPE e a Of Joseph PB&T Brasil para estudo de tecnologias inovadoras com foco na Covid-19

Publicado em 24/08/2020 08:25 | Última atualização em 24/08/2020 09:37

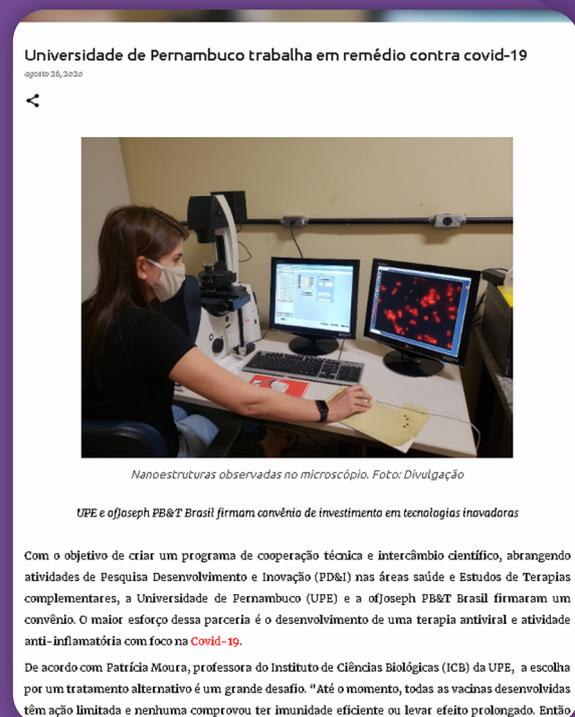


O maior objetivo da parceria é o desenvolvimento de uma terapia antiviral e atividade anti-inflamatória com foco na Covid-19 (ANDREW MILLIGAN)

Com o objetivo de criar um programa de cooperação técnica e intercâmbio científico, abrangendo atividades de Pesquisa, Desenvolvimento e Inovação (PDI&I) nas áreas saúde e Estudos de Terapias complementares, a Universidade de Pernambuco (UPE) e a of Joseph PB&T Brasil firmaram um convênio que tem rendido frutos à população.

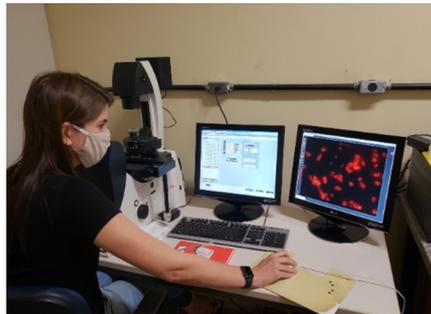
Diário de Pernambuco

<https://www.diariodepernambuco.com.br/ultimas/2020/08/parceria-entre-a-upe-e-a-ofjoseph-pb-t-brasil-para-estudo-de-tecnologias-inovadoras-com-foco-na-covid-19.html>



Universidade de Pernambuco trabalha em remédio contra covid-19

agosto 26, 2020



Nanoestruturas observadas no microscópio. Foto: Divulgação

UPE e of Joseph PB&T Brasil firmam convênio de investimento em tecnologias inovadoras

Com o objetivo de criar um programa de cooperação técnica e intercâmbio científico, abrangendo atividades de Pesquisa, Desenvolvimento e Inovação (PDI&I) nas áreas saúde e Estudos de Terapias complementares, a Universidade de Pernambuco (UPE) e a of Joseph PB&T Brasil firmaram um convênio. O maior esforço dessa parceria é o desenvolvimento de uma terapia antiviral e atividade anti-inflamatória com foco na Covid-19.

De acordo com Patrícia Moura, professora do Instituto de Ciências Biológicas (ICB) da UPE, a escolha por um tratamento alternativo é um grande desafio. "Até o momento, todas as vacinas desenvolvidas têm ação limitada e nenhuma comprovou ter imunidade eficiente ou levar efeito prolongado. Então

Interdependente (NEIO)

<https://www.interdependente.com/2020/08/universidade-de-pernambuco-trabalha-em.html>

Further Reading

Abnormal coagulation parameters are associated with poor prognosis in patients with novel coronavirus pneumonia

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7166509/pdf/JTH-18-844.pdf>

Interactions of mannose binding-lectin with red blood cells by employing cationic quantum dots

<https://www.sciencedirect.com/science/article/pii/S0141813018325637?via%3Dihub>

Combined genotypes of the MBL2 gene related to low mannose-binding lectin levels are associated with vasoocclusive events in children with sickle cell anemia

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5596363/pdf/1415-4757-gmb-1678-4685-GMB-2016-0161.pdf>

Mannose-binding lectin gene (MBL2) polymorphisms related to the mannose-binding lectin low levels are associated to dengue disease severity

<https://www.sciencedirect.com/science/article/abs/pii/S0198885916300775>

Association of variant alleles of MBL2 gene with vasoocclusive crisis in children with sickle cell anemia

<https://www.sciencedirect.com/science/article/abs/pii/S1079979610000380?via%3Dihub>

Mannose-binding lectin serum levels in patients with leprosy are influenced by age and MBL2 genotypes

[https://www.ijidonline.com/article/S1201-9712\(11\)00097-X/fulltext](https://www.ijidonline.com/article/S1201-9712(11)00097-X/fulltext)

Association of the MBL2 Gene EXON1 Polymorphism and Vasoocclusive Crisis in Patients With Sickle Cell Anemia

https://pubmed.ncbi.nlm.nih.gov/19468207/?from_term=oliveira+AND+MBL2&from_pos=3

Serum Mannose-Binding Lectin Levels are Linked with Respiratory Syncytial Virus (RSV) Disease

<https://link.springer.com/article/10.1007%2Fs10875-007-9141-8>

Association of Polymorphisms in the First Exon of Mannose Binding Lectin



 contato@amparohealth.com

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To project's photos and videos, access the Link:
amparohealth.com/media