Cure of the Intestinal Disorders

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Received: Mar 24, 2022
Accepted: Apr 12, 2022
Published Online: Apr 15, 2022
Journal: Annals of Gastroenterology and the Digestive System
Publisher: MedDocs Publishers LLC
Online edition: http://meddocsonline.org/
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Abstract
We proposed human intestine as the gate for the delivery of the therapeutic recombinant proteins expressed inside of the human body. The normal intestinal microflora was used to express the selected genes of the pathogenic organism Yersinia pestis the causative agent for plague in humans and animals. We have confirmed the production of the selected proteins by the PCR to their DNAs expressed in intestinal bifidobacteria chosen. Now it is the role of the immunologists to find the antibodies for the recombinant proteins expressed inside of the volunteer’s organism.

Keywords: Expression of the recombinant proteins inside human’s body; Bifidobacterium breve; Use of genome tailoring technology to express the recombinant proteins inside of the volunteer’s body.

Introduction
The Author started his medical education at Saratov State Medical University after he spoke with his cousin Galina about becoming the Ph.D.-Scientist working with the Yersinia pestis the causative agent of plague and Vibrio cholera the causative agent of cholera at the closed for the employment of the general public Institution Microbe in Author’s native city Saratov (now dissolved) Said scientist had salaries substantially exceeding that of the regular former Soviet society members, just like the Author. For instance, the Soviet Academician was getting his salary of 1,000 Russian rubles, while at the mentioned organization Microbe Senior Ph.D. Researcher was getting 2,600 rubles, etc. The Author has made multiple friends among said Ph.D-level Scientists from the closed for general public employment institution Microb. Some contacts became very useful for Dr. Tyurin for making his scientific presentations at Saratov State Medical University during his course of studying, and for his future work as the Ph.D-student in Moscow, when Dr. Tyurin has gotten as a present over 5 kg of the Japanese Agar-Agar he later used in Moscow for his Ph.D-associated Research and Development (RnD). While studying at Saratov State Medical University and visiting the Microbiology and Immunology Department of said University early in 1981 the Author has learned that what he wanted to become after the graduation of Saratov State medical University was not possible, complicated by his origin of the regular private person. He must note that his cousin Galina was the daughter of the SPCU (Soviet Communist
As the target for the expression in the recombinant Bifidobacterium breve 839 strain the Author has chosen the DNA with the known nucleic acid content originally isolated from the Yersinia pestis strain. Said strain was the causative agent for the human and animals plague [6]. The Author’s choice for said proteins was dictated by the ethiological role of the Yersinia pestis selected as the possible ethiologic agent of the emergent diseases the outer Space travel crews might face discovering other new planets similar to Earth by the temperature and the atmosphere content in the coming future.

Materials and methods

The isolation and investigation of intestinal bifidobacteria of the volunteer was performed as described [3]. Using the described selective medium for the isolation of the intestinal bifidobacteria [2] the Author has isolated Bifidobacterium breve 839 strain from said volunteer’s freshly collected intestinal content (fresh feces). Said strain was subjected to the reduction of its genome by removal of not essential for the vital functions of said strain genes at their positions 4346...4816 bp, 10023...10574 bp, 16239...17477 bp, 19324...20316 bp, 20927...21592 bp, 22486...23799 bp, 237007...238836 bp, 24676...26007 bp, 31295...33502 bp, 34410...36290 bp, 37707...39254 bp, 538583...541012 bp, 643441...645516 bp, 817368...820625 bp, 1476554...1481404 bp and 2258202...2261981 bp using the procedures described in [7,9-17].

Total genomic DNA from B. breve 839 was isolated by the procedure [10]. The primers for the PCR to check the presence of the recombinant pesticin and the hypothetical protein YPMT1.21c DNA sequences were designed using the publically available tool [18].

The process of genetic modification of said B. breve 839 strain took less then 200 hours to ensure the strain regained the capability to adhere back to the intestinal wall of the volunteer as we have stipulated that before [2,3].

Electron microscopy of intestinal tissues

The Author has great connections in the local community and therefore was able to ask the local University of the donation. The University had rabbits and some of them had to be sacrificed for the whole blood removal for the antibodies generation process for their R & D. The freshly dead rabbit bodies are normally discarded using the standard procedure to ensure the proper dead tissue disposal. Knowing that process, the Author has approached the University staff and kindly asked if certain rabbit body part could be left for the Author further processing. The Author has selected the rabbit body parts from the rabbit intestine. The Electron microscopy of the intestinal cells was performed as described [21]. The blood samples shown in tubes were obtained from the same University employees, who granted the access of the Author to the rabbit intestinal cells. The images of the chilmicros were obtained from the intestinal samples of the rabbits immediately disposed after their meals, as offered by the donation to the Author of this original article by the employees of said University (Figure 1). The sample with turbid blood serum was obtained just after the rabbit meal (Figure 2).

Results

The isolation of intestinal bifidobacteria and its species identification has happened as that was described before [1]. As the mandatory part of the genome tailoring procedure we have reduced the genome of B. breve 839 by 39048 bp and introduced only 2893 bp of the recombinant DNA corresponding to...
the recombinant genes of pesticin and the hypothetical protein YPMT1.21c DNA sequences. That gave us the advantage of the shortening of the cell duplication time by 12 min. Said shortening of the cell duplication time resulted in the predominant multiplication of the recombinant strain of bifidobacteria in the intestinal content of our volunteer resulting in the expression of the recombinant proteins from Yerisinia pestis in the intestinal content of the volunteer, as we have confirmed by the checking of the total DNA of the resulting recombinant strain B. breve 839 YR for the presence of the nucleotide sequences of the Yerisinia pestis pesticin and the recombinant hypothetical protein YPMT121c.

The recombinant DNA sequences we used are the following. The recombinant pesticin DNA sequence was

```plaintext
aaaaattattttaacaatccactatcgagatcttttttgacaccaggacacgccttcgttattacgtctgcaacacacacaatcatattatattaaagacacattacaaggccatcctcccgttctgcttgcatttacattttatcattattttctttttggagccagagcgccctcgtggtttacgtctgtcagacattccatcaacaatattttctttttgcgataactttattccatactggtgaaattatataataataattgataagagatgagctcattatacagagcagagttccgtttccatctctcagccatatggaatcattttcatcgtttctactggttcttgactattttctgttcgtaagacacggtcccttcagttttagaaattttactttcctggcggatcttatttgaatattcactgtctttctccatctccgtatcaatcggaaaccccataatgtaatcgtgatattcgtcattttatcattttctttttggctcgccctgtttacctgggtcttgattgccctgctcgttgtctccagcagcaccgccacccagcgcctccgcgctcatgcgcttcagctgcatccatcaggccacacggccataagcatttgccacagattcataaaaa.
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Said DNA sequence was inserted by the means of the electro transformation using the patented in the USSR the Author’s electro transformation generator [19,20]. The crucial difference of the results obtained using said the Author’s patented electroporator is the absence of the restrictions on the size of the DNA introduced using said electro transformation generator, for its stable expression [2,3,7-20]. To make sure the resulted recombinants were stably expressing said recombinant human pancreatic Lipase, their genome was substantially reduced as described [7-17], the intact genome of the bifidobacterial strain used to create the stable genetically engineered was substantially reduced by the eliminating of the genome segments as described herein.

The proof of the ingestion in the bloodstream of the recombinant proteins was shown indirectly by the taking images of the chilomicrons in the bloodstream of rabbits and the blood serum After the rabbit meals.

Figure 1 shows the hilomicrons, the fat particles, absorbed by rabbits from their meals (Figure1). That absorption was not possible if no recombinant proteins were absorbed by the blood capillaries of the small rabbit intestine.

Rabbit blood serum coming from the intestine had changes in its transparency, as the food fat created the turbidity in the blood stream coming from the small intestine as Figure 2 shows.
The PCR performed with the genomic DNA of the recombinant strain B. breve 939 YR showed the anticipated for the DNA encoding the recombinant peptisin 209 bp fragment. The anticipated fragment of 171 bp was shown for the PCR products per the PCR per the gene coding for the hypothetical protein YPMT121c.

**Discussion**

We have discussed the prospects of our planet in the future at our corporate web site, and noted the coming in 20-50 years from now the shortage of the fresh water. Indeed, accumulated in the air CO₂ is one of the highest gasses in the air blend, reaching its density 1.97 g/cubic meter [3]. The CO₂ in the air gas mixture under the no wind environmental conditions spreads on the ground surface and selectively absorbs all the infrared energy of the Sun light, thus heating the ground significantly. That causes the extra evaporation of the fresh water from soil to the air. As you know, Global Warming presents itself in various forms, specifically with increased frequency of rainy weather, long rainy days, tornadoes, etc. But the Earth gravity has been stable for the last few million years from now. Therefore, under the constant gravity force applied, more fresh water vapors are in the air. The space, surrounding Earth, as any Space anywhere, has vacuum. That vacuum sucks fresh water vapors from Earth air, and such fresh water vapors travel in the Space in the unknown direction away from the Earth. In 2010 NASA has bombarded the Moon and found plenty of ice on its dark and very cold surface. The Earth satellite Moon is located 220,000 miles away from Earth. One Moon’s side is always dark and very cold and as it never gets Sun light irradiation. It is very cold, as cold as the Space vacuum, -273 °C. So NASA were guessing where said ice came from? Moon worked as the cold trap for the crowded Earth. Said immunization does require certain genetic manipulations which are possible on the board of said outer Space travel vehicle(s) by the suing the described technologies of genome replacement in the intestinal microflora of the potential crew members of said vehicle. This circumstance closes the need for the special medical personnel on board of said outer Space travel vehicle(s) to perform the immunization of the crew from the emergent infections reasonably anticipated for the existence in the new outer Space locations. This approach may have crucial importance for the manned crews life during said long term outer space travel missions proposed.

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