

# **The Amazing Power of Biotechnology**



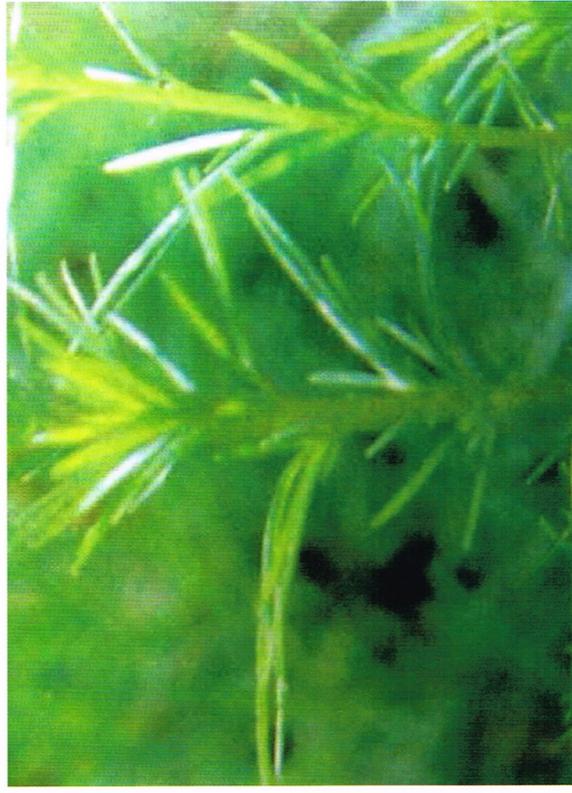
**Biotechnology for Quick-Acting Remedy  
Okinawan Herbal Medicine**

**Prevent cancer, metabolic syndrome related  
diseases, and asthma  
by enhancing intrinsic healing power**

# Okinawan Medical Herbs



Kohenruda (*Ruta chalepensis* L)



Ryukyu mugwort (*Artemisia campestris* L)

## BIO-MAKE



## PROFILE

**Bio-Make Microorganism Research Institute Co. Ltd.**  
Director: Yukinobu Agarie

Born in 1946, Mr. Agarie started his research on herbal medicine around 1970. In 1972 in Nishihara Town, he discovered a new type of microorganism named "Agarie-Bacillus". In 1975, he established his research center. Based on one variety of microorganism, he developed a microorganism technology that now serves worldwide in the fields of agriculture, stockbreeding, fisheries, environment and health.

The Nihon Keizai Shimbun, the Nikkei Business Daily, the Nikkan Kogyo Shimbun, the Weekly Diamond and other regional newspapers have introduced his research as a genuine microorganism technology.

Yukinobu Agarie is the author of "A Super-technology to change the world" (Kanki Publications) and "Agarie Bacillus to save the Earth" (Business Sha Publications). Also, in the booklet "The Amazing Power of Biotechnology" published in English, Japanese, Chinese and French, he introduces a technology that enhances the intrinsic healing power of cancer patients and the efficacy of the Okinawa herbal medicine that prevents diseases caused by metabolic syndrome.



**“I would like to see all forms of cancers disappear from human bodies while I am still living.”**

These are the words of Princess Takamatsunomiya Kikuko to express her wishes. However, she passed away before any treatment for perfect remedy for cancer was discovered. Then, I decided to succeed her wishes several weeks after she passed away. Since then, the amino acid products made from fermented *Agaric bacillus* have successfully given to cancer patients to enhance their healing power to fight against their cancers.

The enhancement of intrinsic healing power by our amino acid products is not a conventional treatment accepted by experts of contemporary medicine. However, the products have been spread among cancer patients by mouth-to-mouth advertisement for the past 10 years or longer. I have developed a technology of various micro-

organisms during the past 30 years or more following my discovery of *Agaric bacillus*.

My special fields of interest included a technology to make herbal medicine products for quick-acting cures using the herbs of Okinawa. The herbal medicinal products have been made using technology developed and used to improve or heal many diseases. However, in reality, we are not likely to open up a market for these products since products that cure diseases quickly usually do not sell well. In other words, sales of highly effective products are limited. I have instructed users to discontinue the use of our products when their symptoms improve or their diseases become cured. The users, whose diseases have been cured, tell many others who may be in need about their experiences with our products.

It is also true that quite a number of people have no knowledge about our products. Feeling desperate and trying to hold on to any lifeline, some sick people may purchase certain products

with no effective ingredients. This is because they do not know of any other therapeutic methods.

The history of making herbal products for cancer patients goes back to the time when I was involved in research into microorganisms many years ago. The technology to utilize certain microorganisms to synthesize protein substances was applied to produce livestock feed. The livestock feed products were made in Kagoshima Prefecture with a help of the Mitsui Mining & Smelting Co., Ltd. In the process of making the livestock feed, a professor of the Kagoshima University of Agriculture and his students were asked to assist us in collecting data. They helped us and one of his students wrote a graduation thesis using the data collected. The professor found that the protein content of the livestock feed was increased following the fermentation of the microorganisms, and held seminars about the increase in protein content by microorgan-

ism activity whenever he visited Okinawa for academic conventions on animal husbandry.

The professor was interested in the technology to increase protein content of livestock feed due to the microorganism's ability to make protein. He conducted experiments of the livestock feed using animals and obtained a result in which the liver fat of the tested animals was decreased. Another change observed in the test was the rejuvenation of cows, pigs and chickens. A milk cow usually bears children many times to produce milk. As a cow gets older, the quality its meat will generally become harder and darker. However, the degraded meat will be improved to regain the original quality using a technology that has been verified by Okinawa Federation of Economic Organization Livestock Division.

The liver fat was decreased in the livestock examined. No cows, pigs, or chickens were killed. The technology to make the livestock feed was a monumental development from the per-

spective of improving the meat quality of livestock.

Following the development of livestock feed production, the technology to treat cancer patients was developed. It was my belief that abnormal cells are formed in the human body when new protein can no longer be formed. These abnormal cells will disappear theoretically following new synthesis of protein. In the case of skin infections, an effective ointment may be applied to heal the infection and restore the original condition of the skin cells. Likewise, proteins are constantly formed to repair cells affected by tumors. Based on this theory, it is possible to treat cancer. In modern medicine, the efficacy of a drug has to be verified by experiments using animals first, and then it is followed by clinical tests. I also tried to follow the procedure and asked a testing facility to study the survival rate of rats. However, I gave it a second thought and began to think experiments on rats or other small ani-

mals do not necessarily reflect the efficacy in the human body since human cells are different from the cells of other animals. In fact, many anti-cancer drugs have been found to be significantly effective although their efficacy has been confirmed by experiments using small animals.

The polypeptides made from shochu liquor lees from Kagoshima Prefecture were given to a patient in the terminal stage of lung cancer and under medical treatment at home since his case was given up by his physician. This patient's son was given information on the polypeptides by a medical doctor whom I knew before he came to see me. I gave him a small amount of the polypeptides since I only had a small amount in stock. The son and his father called on me to pay their respects and to thank me three months later because the father's cancer had disappeared. This story was spread among cancer patients by word of mouth. This initiated the production of polypeptides (amino acids) in a great quantity to

make them available for many cancer patients. Today, the polypeptides are produced using pineapple fruits. The polypeptides have been used for about ten years by many cancer patients by word-of-mouth advertisement.

I have studied the cancer types of patients who were taking oral polypeptides and discovered that the products effectively and quickly enhanced the healing power of patients with various types of cancers including throat cancer, breast cancer and stomach cancer. The administration of amino acids will induce synthesis of new proteins in the human body by which cancer cells have been shown to disappear. One hundred thousand (100,000) kinds of proteins, which are made from only 20 kinds of amino acids, constitute the human body. Many people believe that cancer is a terrible fatal disease. People do not wish to die from cancer. I am committed to make efforts to make the dream of Princess Kikuko come true.

Anti-cancer drugs have side effects such as decreased white blood cell counts, diminished immune response, loss of hair, all of which can be prevented by intake of amino acids or polypeptides.

## **Amino Acids and Their Roles in Human Body**

### **\* Essential Amino Acids**

Essential amino acids cannot be made from other types of amino acids in the human or any other animal body and must be taken through nutrients. The required quantity of these amino acids is not likely to be made sufficiently, thus they are also called indispensable amino acids.

### **\* Quasi-Essential Amino Acids**

Quasi-essential amino acids are not made sufficiently in infants who grow fast and they are in short supply.

## **Amino acids have various roles to play in human body.**

Our body is made up of one hundred thousand (100,000) kinds of proteins that are made from 20 kinds of amino acids in different combinations. Each and every amino acid has its specific role making it very important for our body. See the list of amino acids written below.

- Valine, isoleucine and leucine contribute to increase proteins in our body and they play a vital role as an energy source when exercising.

## List of Amino Acids

### **Alanine:**

An amino acid that is an important energy source for the liver

### ★ **Arginine**

A basic amino acid that is required to maintain the normal function of the blood vessels

### **Glutamine**

An amino acid that is required to maintain the normal function of the gastric and intestinal tracts and muscles

### ☆ **Lysine**

An essential amino acid whose deficiency may be caused by a diet of bread or rice

### **Aspartic acid**

An amino acid which is a readily usable energy source; abundantly found in asparagus

### **Glutamic acid**

An amino acid that is contained in wheat and soybean in large quantities; is a readily available energy source

### **Proline**

A major ingredient of collagen, which forms the structural framework of human skin; is a readily available energy source

### ★ **Cystine**

An amino acid that suppresses the formation of melanin, a black pigment found in the skin

### ☆ **Threonine**

An amino acid that is used in the formation of enzyme activators

### ☆ **Methionine**

An amino acid that is used to form various substances required by the body

### ☆★ **Histidine**

An amino acid which is required to form histamine

### ☆ **Phenylalanine**

An amino acid that is used to form various beneficial amines

### ☆ **Tyrosine**

An amino acid that is used to form various beneficial amines

### ☆ **Tryptophan**

An amino acid that is used to form various beneficial amines

### **Asparagine**

An amino acid that performs a part in the TCA cycle (energy forming reaction) together with Aspartic acid

### **Glycine**

An amino acid that is used to form glutathione and **porphyrin**, an ingredient for hemoglobin

### **Serine**

An amino acid that is used to form phospholipids and glyceric acid

## Result of Chemical Analysis Fermented Pineapple by *Agaric Bacillus*

### ■ **Nutrients (Unit/100ml)**

Energy . . . . .	2 kcal
Protein . . . . .	0.2g
Lipids . . . . .	0
Carbohydrate . . . . .	0.2g
Sodium . . . . .	4mg
Organic Acids (Citric Acid) . . . . .	0.6g
Amino Acids (Unit/100ml)	
☆ <b>Valine</b> . . . . .	<b>4mg</b>
☆ <b>Isoleucine</b> . . . . .	<b>3mg</b>
☆ <b>Leucine</b> . . . . .	<b>4mg</b>
☆ Lysine . . . . .	6mg
☆ Methionine . . . . .	1mg
★ <b>Cystine</b> . . . . .	<b>4mg</b>
☆ Phenylalanine . . . . .	2mg
★ Tyrosine . . . . .	3mg
☆ Threonine . . . . .	4mg
☆ Tryptophan . . . . .	0mg
★ Histidine . . . . .	2mg
★ Arginine . . . . .	4mg
Alanine . . . . .	7mg
Aspartic acid . . . . .	26mg
Glutamic acid . . . . .	12mg
Glycine . . . . .	6mg
Proline . . . . .	5mg
Serine . . . . .	4mg

★ Quasi-Essential Amino Acid

☆ Essential Amino Acid

As far as I am concerned, the researches on cancer may have been completed, however a possible enhancement of the intrinsic healing power of human body with regard to AIDS (Acquired Immune Deficiency Syndrome) will have to be tested using our products in the future.

A recent trend shows that more people with atopic dermatitis and diabetes are taking our products. The treatment of atopic dermatitis should include the sterilization of **Malassezia** (a microorganism found on the skin), which would enhance new cell formation to repair the damaged skin tissues. Dark or pigmented skin can be treated with cystine intake. The administration of kohenruda herb (*Ruta chalepensis*) together with the other products (see the instruction on the next page) has proved to enhance the intrinsic healing power of human body in patients with cancer and other incurable diseases. The water metabolism in patients with collagen dis-

ease, herpes zoster, varicose veins, enlargement of the prostate, abnormal thyroid gland, and arthritis with water retention has been improved and the resulted formation of new proteins has repaired the damaged tissues, which has made walking easier for them. The technology for the promising effects of our products has been chosen as a subject of “Home Medicine” studies in classes for women’s organization members and elderly people in Okinawa. The technology for self medication to protect our own bodies is vital in this aging society.

The best use of these herbs in Okinawa is for quick-acting cures and the administration of such herbs should be discontinued as soon as the desired effects have been obtained. Prolonged use of such herbs may lead to inertia making the intake useless and ineffective.

We recently hear talk about “ingredients with proven effect and function” as a significant fac-

tor in treating patients. Many herbs contain various ingredients which work in many ways when taken orally. The ingredients of various compounds are regarded as highly important and included in my formula together with quick-acting herbs. The herb called "kohenruda (also called an herb that troubles medical doctors in Okinawan dialect)" grows in the northern district of Okinawa island, but it is decreasing in number. The major ingredients of the herb include eight (8) kinds of alkaloids. Warning: Two types of alkaloids contained in the herb are toxic, and it took me three years to exclude them from the products.

The herb plant is dangerous since it may cause skin irritation in many people who come in contact with the plant. The plant has strong foul odor, which is a reason why it is called "a bad smelling plant" in China. The plant contains methyl substances and the plant soaked in alcohol is not fit for drinking. The exposure to

ultraviolet rays following skin contact may cause a rash. However, a special technology has been developed to treat the herb, kohenruda, so that the plant can be used to enhance the intrinsic healing power of the human body. Nervous system disorders or diseases can be healed instantaneously. It takes 4 ~ 5 days to cure cervical hernia. Others such as backache, hernia, gout, strained back, stiff shoulders, neuralgia, painful legs and back, autonomic imbalance (ataxia), apnea syndrome, ringing in the ears, dizziness, hay fever, and hypertension (high cholesterol level) may be improved in as little as two weeks. Many patients with metabolic syndromes may experience enhanced healing in approximately 30 or 60 days. In cases of lifestyle diseases related to metabolic syndromes, the normalization of nervous system has resulted in cure or desirable control since lifestyle diseases and nervous system are interrelated in a complicated manner.

The herb, kohenruda, grows on the red soil

of the northern district of Okinawa Island (the pH level of the soil indicates acidity) where its ingredients become concentrated. The effect of the plant is expected to be diluted when different types soils are used to grow it.

The herb called Hama-machi (*Artemisia campestris*. A mugwort) grow on sand beaches of Okinawa and it is good for asthmatic patients. This plant is usually exposed to bright sun light during the day time and gets is life-sustaining fresh water from the morning dew. Thus, the mineral contents of the plant are quite high and concentrated. The plant consists of 12 kinds of antitussive agents which remove sputum. The sputum on the throat may be easily removed in 2 or 3 weeks following the intake of the plant. The removal of sputum from asthmatic patients will prevent attacks, which in turn will improve health in general by enhancing the body's healing power.

## Okinawa's Longevity and Sugarcane

I had a dream about sugarcane and tried to ferment the plant. To my surprise and excitement, there were many fantastic findings in relation with such fermentation. My big dream has come true!

As I stated already, "the human body is made from approximately 100,000 kinds of proteins that are formed by combining 20 kinds of amino acids only." The chemical analysis of fermented sugarcane shows that a large amount of these constituents are included in a drinking solution made of fermented sugarcane. A balanced intake of amino acids is indispensable for the normalization of the human body. I believe the sugarcane drink provides a balanced amino acid supply. The essential amino acids cannot be formed in human body, thus they have to be taken

as nutrients. This is why they are also called indispensable amino acids. Quasi-essential amino acids are preferably given to children during their growth period. The fermented sugarcane solution for drinking is a good source of the required amino acids for human bodies.

The price of sugarcanes has been low and the number of farmers who grow sugarcane has been declining. The fermented sugarcane vinegar solution has proven to be healthier than so-called health drinks that are available in the market. The fermented sugarcane solution can enhance the intrinsic healing power of human body. The vinegar products made from the fermented sugarcane possess the possibility of saving all sugarcane farmers in Okinawa in the future.

## Result of Chemical Assay Fermented Sugarcane by Agarie Bacillus

■ Nutrients (Unit/100ml)	
Energy . . . . .	0kcal
Protein . . . . .	0g
Lipids . . . . .	0g
Carbohydrate . . . . .	0.2g
Sodium . . . . .	5mg
Amino Acids (Unit/100ml)	
★ Valine . . . . .	7mg
★ Isoleucine . . . . .	6mg
★ Leucine . . . . .	8mg
☆ Lysine . . . . .	10mg
☆ Methionine . . . . .	2mg
☆ Cystine . . . . .	0mg
☆ Phenylalanine . . . . .	5mg
★ Tyrosine . . . . .	5mg
☆ Threonine . . . . .	7mg
☆ Tryptophan . . . . .	0mg
★ Histidine . . . . .	3mg
★ Arginine . . . . .	4mg
Alanine . . . . .	15mg
Aspartic acid . . . . .	41mg
Glycine . . . . .	8mg
Proline . . . . .	8mg
Serine . . . . .	6mg
Protein . . . . .	0.1mg
★ Quasi-Essential Amino Acid	
☆ Essential Amino Acid	



# Agarie bacillus

The microorganism of Bio-Make Co. Ltd.  
Photo showing **Actinoplanes**



A new microorganism was found in 1972 from soil in Nishihara Town, Okinawa Prefecture. It was a kind of **Actinoplanes** and named as Agarie bacillus after the name of its discoverer. This microorganism discovered in Okinawa is unique and unprecedented since "its mutation can be induced" unlike other microorganisms. The induction of mutation can be designed according to what is needed for a business application and approximately 200 types of microorganism technologies have been developed during the past 31 years.

The original microorganism is easily induced to mutate. Thus, a technology has been developed to prevent undesirable mutation.

All of the above studies and technologies have resulted in the establishment of this recent technology. Amid many researchers engaged in studies of mixed microorganisms, it was not easy to develop many technologies using only one kind of microorganism.

The following technologies have been developed since there were many people in need of such technologies.

The various microorganisms including a heat resistant bacterium, a room temperature bacterium, a water soluble bacterium, an alcohol soluble bacterium, a lactic acid bacterium, an acetic acid bacterium, oil decomposing bacterium, an anti-pathogenic bacterium, and a resistant bacterium have been developed to use for the treatment of garbage, oils and chemicals. The technology to form animal protein helps formation of human body cells and disappearance of cancer cells. These technologies have been applied to agriculture, the livestock industry, fisheries, the environmental conservation field, and the health of people, and products using the technologies have been produced to contribute to the welfare of mankind in the world.

## **Bio-Make Microorganism Research Institute**

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