

THE NEWEST REPORT

The second Science and Technology in Society forum (STS forum)

The second Science and Technology in Society forum was held at Kyoto International Conference Hall from 11th till 13th of September, 2005. Prof. Luc Montagnier and Mr. Hayashi participated in this forum as representatives of World Foundation Aids Research and Prevention.

The Science and Technology in Society forum aims to provide a new mechanism for open discussions about "Light and Shadow" of science and technology issues on an informal basis, and to build a human network among not only scholars and researchers but also policy makers, business leaders and media leaders from all over the world, including Japan's crown prince, prime minister Junichiro Koizumi, 18 ministers in charge of science and technology affair, 10 Nobel laureates, etc.

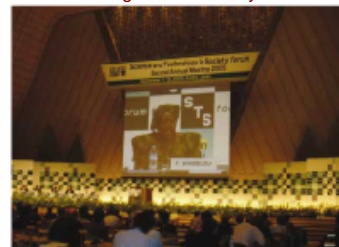
Prof. Luc Montagnier made a keynote speech in the session on infectious diseases.



Mr. Ellis Rubinstein (president of New York Academy of Science) & Prof. Montagnier



Prof. Montagnier & Mr. Hayashi



The Opening Ceremony of STS Forum

Piano Concert & Gala Dinner at Sénat in France

The Osato Research Institute held a Piano Concert of Mr. Yoshihiro Ota and a Gala dinner party in the French Academic Meeting "Nutrition, Oxygen Biology and Medicine" at Sénat in France on 4th of March, 2005. Mr. Yoshihiro Ota is a young talented pianist. He is currently pursuing its master's course of the Tokyo National University of Fine Arts and Music. The concert was planned and organized by Mrs. Toshiko Hayashi of our institute. This year, he was chosen one of the most promising 5 young musicians by CHANEL and received an opportunity of their art support program called "CHANEL Pygmalion Days".

Prof. Pierre Cillard (president of this meeting),
Prof. Montagnier, and Mrs. Toshiko Hayashi



Mr. Ota playing the piano at Sénat

Preservation of the research documents of Mrs. Marie Curie at the Curie Museum has been completed.

At the Marie Curie Museum in Paris where they leave her great work, a discovery of Radium, for posterity, a project of preservation of her precious historical documents in DVD has been completed. They kept more than 1200 pages of scrapped newspaper articles about her work which had been deteriorated with 50 years of time. The Osato Research Institute cooperated this project of digitization of these documents, scanning all the pages one by one. After months of work, a modern technology made it possible to reserve these precious records of her work for good. Any visitor of this museum can take a look at this DVD.

The Curie Museum Address: 26 rue d'Ulm 75248 Paris cedex 05 - France



Mr. Christophe Piednoel & Mr. Hayashi



DVD with ORI logo in the display

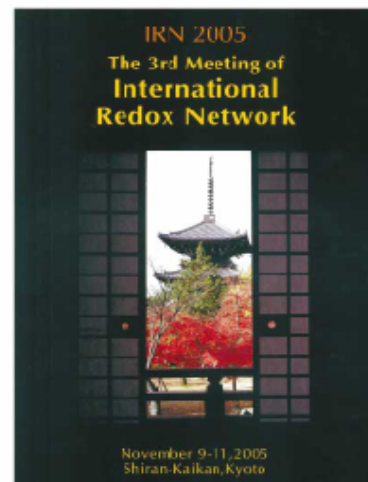
Presentation at the meeting of International Redox Meeting

On the theme “REDOX” which is a main them of the OSATO Research Institute, the 3rd meeting of IRN was held in Kyoto. Prof. Lester Packer was invited for a lecture and Dr. Francesco Marotta and Dr. Okezie Arouma made presentations on their researches on FPP.

From 9th till 11th of November, 2005, the 3rd meeting of International Redox Network (IRN 2005) was held at a conference hall of Kyoto University. The president of the meeting was Mr. Junji Yodoi and many of the top experts in this field got together for this highly specialized meeting. At this meeting, Dr. Francesco Marotta (Milan university) and Dr. Okezie Arouma (London Southbank University) made speeches on FPP.

Dr. Marotta is a clinician specialized in digestive system. He has been making so many presentations based on his own clinical data. This time he made a speech on effect of FPP to normalize our body after receiving Oxidative stress comparing people with GSTM1 (+) and (-) GSTM1 is a gene which is necessary to produce glutathione, antioxidant. Therefore, the normal body recovery system from oxidative stress of people lacking this gene tends to be not functioning well, and they have more risks of lung cancer due to free-radical from smoking, etc. You might not be familiar with the expression of lacking a “gene”, but it is quite common thing to be racking this gene and usually half of randomly selected people do not have this gene. From his research, he found out that the level of oxidative stress marker 8-OH-dG of group GSTM1(-) became closer to the level of group GSTM1(+) after intake of FPP.

Dr. Arouma is researching on neurodegenerative diseases caused by Oxidative damages. The damage caused by free radicals is involved in aging of the skin such as pigmented spots or wrinkles, but when the damage becomes tense and continuous, it will leads to a neuronal degeneration, which is said to be related to Alzheimer, Parkinson Diseases, premature aging and various kinds of cancers, etc. Dr. Okezie showed a data that neuronal cell pretreated by FPP is strong against Oxidative damage of free radicals. In one meeting, we could have two presentations both in basic research and clinical study and many participants seemed interested in FPP and making questions about it.



Front page of the program



Presentation by Dr. Marotta



Presentation by Prof. Lester Packer



From left: Mr. Hayashi, Prof. Angelo Azzi, Dr. Amnon Altman, Dr. Okuda, Dr. Okezie



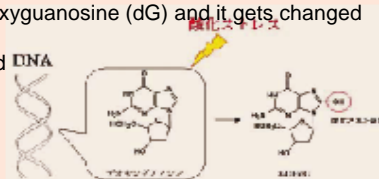
Mr. Hayashi was invited to 2006 International Free radical Meeting by the president, Dr. Azzi



Dr. Okezie & Prof. Arne Holmgren from the Karolinska Institute in Sweden

What is 8-OH-dG

Our body consists of approx. 60 trillion cells and in those cells we have a “blueprint” to produce functional life. The “blueprint” is called “DNA” which is found in every cells of every life form, and consists of four types of nucleotides: adenine (A), cytosine (C), guanine (G) and thymine (T). The DNA compound which contains guanine (G) is called deoxyguanosine (dG) and it gets changed into 8-OH-dG (8-hydroxy- deoxyguanosine) when its 8th carbon is oxidized by free radical (as shown in FIG.). When the oxidative damage to DNA is repaired, 8-OH-dG will be passed out of the cells and excreted in the urine. 8-OH-dG remains stable until it is released in the urine and analyzed. 8-OH-dG taken from food does not remain in the urine. Therefore, 8-OH-dG is an excellent biomarker to determine the extent of oxidative damage in our body. It will not show us which part of the body is damaged by free radical activity but it does enable us to evaluate our overall health status in relation to oxidative stress.



The 3rd Meeting of Japan Preventive Medicine

The 3rd meeting of Japan Preventive Medicine was held in Ube-city, Yamaguchi, from 10th till 11th of December, 2005. More than 300 researchers from all over Japan participated in this meeting, presenting research and exchanging opinions. The purposes of the Japan Preventive Medicine meetings are to discuss recent findings with a view to how we can improve health conditions, prevent disease, reduce medical costs and to look at the different angles for preventive medicines from various points of view, such as treatment, medicine, food and life style, etc... The Osato research Institute participated in the food section of this meeting with a poster presentation mainly based on Dr. Marotta's Clinical study "OXIDATIVE-INFLAMMATORY DAMAGE IN CIRRHOSIS. EFFECT OF VITAMIN E AND A FERMENTED PAPAYA PREPARATION" explaining that taking FPP could lead to preventing the progression of cirrhosis disease caused by oxidative stress.



Dr. Mantello made a speech at the Co-Medical industrial exhibition

The Co-Medical industrial exhibition 2005 was held in Tokyo with a theme "Seeking for future vision of Health, Medicine, Welfare" from 25th till 26th of August, 2005. The word "Co-Medical" means all the people who support doctor's medical treatments, including pharmaceutical chemists, nurses, nutritionists, physiotherapists, etc. At this exhibition, Dr. Pierre Mantello, a director of Osato Research Institute, made a speech called "nutritional approach for aging and diseases". He explained to the audience that it is important to make our immune system and anti-oxidative system function properly if we want to stay healthy and young and that FPP functions not only to erase free-radical directly but also to indirectly activate our internal enzymes supporting our internal anti-oxidant system.



Other Topics in 2005

New research using rat brain

Under Prof. Lee at Kanagawa Dental University, we have started new research on the effect of FPP on oxidative stress in the brain using an animal model. We look forward to informing you on the latest results in due course. Prof. Lee is a leading expert in the field of free radical research and takes a huge interest in the properties of FPP.

Symposium on the Education for Aids Prevention

To participate in the symposium on the education for Aids prevention held in Onocho, Gifu, Japan, on 19th of May, Prof. Luc Montagnier and Dr. Okezie Aruoma visited Japan. They visited ORI before the symposium and discussed the possible clinical use of FPP for infectious diseases, AD and PD etc. They also had a look at the equipment in our laboratory and discussed potential for basic research in Japan.

New Equipment to measure oxidative DNA damage

At our laboratory, we have introduced new equipment to measure DNA damage called the "Micro Plate Reader" this measure oxidative damage. It works by measuring the bio-marker, 8-OH-dG (See the reference in the left page). The more 8-OH-dG we have in the body, the more our DNA has been damaged by oxidative stress in our body. The Elisa kit for measuring 8-OH-dG (Nikken SEIL Corporation) and the Micro Plate Reader make it possible to easily and quickly check 8-OH-dG levels in our urine.

Greetings from the New vice director

ORI is a very unique research institute. It is a great inspiration to me that ORI is involved in international research activity but also its involvement in charity activities such as supporting the World Foundation Aids Research and Prevention's Japan Office as well as other social activities for the local children. The sole focus of our research is "FPP" (Fermented Papaya Preparation) and famous scientists all over the world have been cooperating with our research activities as members of the ORI Scientific Board, to substantiate FPP's effect on immune adjustment with clinical data and its mechanism of involvement in our internal Redox systems. We have members of the board in different fields, in different countries, and each of them communicate their research findings with FPP in international academic meetings, as well as meetings held by the ORI scientific committee. This openly communicates research results and discusses the potential and direction of future research.

Our director, Dr. Pierre Mantello is directing FPP research in Europe and has been introducing FPP as an effective food supplement for alternative healthcare in France and Italy. His efforts have made FPP accessible for many people who need it. Although FPP is made in Japan, our research results are still behind compared with the splendid research results in Europe. I would like to launch an initiative for new research projects in Japan to enhance our study.



Sachiko OKUDA
Ph.D.

Deputy Director of
Osato Research
Institute

She was graduated from Physical Chemistry Dept. of Ochanomizu Women's University (Japan), and received her MSc degree in physical chemistry from U.C. San Diego(USA) and PhD degree from University of Southampton(UK) for researches on angular distribution of photo-dissociation products, and infrared emission from molecular reactions. She was ex-executive director of FCG research Institute Inc. She also has held important positions in organizations such as Director (Interim Board Member) of INWES(International Network of Women Engineers and Scientists), President of INWES Japan and Vice President of Japanese Academy of Facial Studies.

• Dr.Mantello Study Report •



Immune Enhancement and Anti-oxidative Function of FPP

The health of our body is maintained by the equilibrium of Oxidation and Reduction. Excessive external factors can disturb this equilibrium triggering disease and illnesses. DNA damage caused by oxidative stress is particularly dangerous and has the potential to lead to serious disorders. Here we present the immune enhancement and anti-oxidative function of FPP.

Dr.Pierre MANTELLO
O.R.I. Director

CES Bacteriology,
Virology, Parasitology,
Immunology,
Hematology, Biochemistry



Redox control means maintaining the balance between active oxygen species and antioxidant enzymes

Previously we discussed what Redox is. This time, we are talking about a biomarker which indicates if the Redox system is functioning properly in our body. Active oxygen species are vital to for life, however once this active oxygen exceeds a certain level; it causes considerable damage to our cells and threatens our health. Normally about 2% of oxygen inhaled by our respiratory system turns into active oxygen in our body and is used to protect us against external attack from, bacteria, germs, viruses and other foreign substances. However, when levels of active oxygen species are increased by tobacco, alcohol, ultra-violet rays, air-pollution, food additives, emotional stress, etc., excessive active oxygen starts attacking not only dangerous substances but also normal functioning cells, damaging DNA and causing cancers. This state is called oxidative stress. As long as a balance exists between oxidative stress and our antioxidant system, our body is maintained in a healthy state. However, excessive oxidative stress leads to various illnesses, such as digestive troubles, cardiovascular disease or immune disorders.

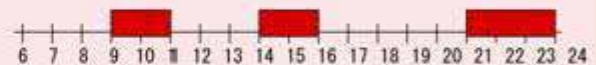
Clinical report on FPP and repairing oxidative DNA damage

Clinical data produced by Dr. Francesco Marotta at the Milan University showed that FPP has the ability to repair the effects of oxidative damage on DNA as well as to prevent it, as indicated by using an effective bio-marker called 8-OH-dG. In other words, FPP has the capacity of helping the DNA to recover to a normal state (immune enhance function) and an anti-oxidant function. At the Osato Research Institute, we use a kit to measure this 8-OH-dG, which is an excellent bio-marker for oxidative stress, using urine. We are hoping to do new research on oxidative stress using this 8-OH-dG measurement kit. I hope we can expand our research by clarifying the relation between FPP and oxidative stress.

How to take FPP

Stress	Conditions	Intake
Level I	Healthy. Take FPP to keep healthy and to prevent degenerative diseases.	1 to 2 sachets a day (3g ~ 6g)
Level II	Subjective symptoms Occasional pains	2 sachets x once or twice a day (6g ~ 12g)
Level III	Doctor's diagnosis Continuous pains	2 sachets x twice or three times a day (12g ~ 18g)
Level IV	To improve QOL in a critical condition	3 sachets x three times a day (27g)

Take FPP between meals (10:00 am, 3:00 pm or before going to bed). Hold the powder in your mouth until it has dissolved. Do not eat or drink anything for 10 minutes after taking in order to ensure it is mixed well with saliva and activated.



The amount of taken depends on the level of stress and conditions of the individual. The diagram is for your reference based on the clinical studies of the OSATO Research Institute.