An IV drip chamber is shown hanging from a metal hook. Instead of a clear liquid, it contains several bright orange fruits. A clear plastic tube is connected to the bottom of the chamber, leading to a drip chamber and a syringe-like device. The background is white, and a vertical green bar is on the left side of the image.

Effect of Vitamin C and anti-oxidative nutrition on radiation-induced gene expression in Fukushima nuclear plant workers

**Atsuo Yanagisawa, M.D., Ph.D.
Japanese College of IV Therapy**

THE NEWS IN PICTURES

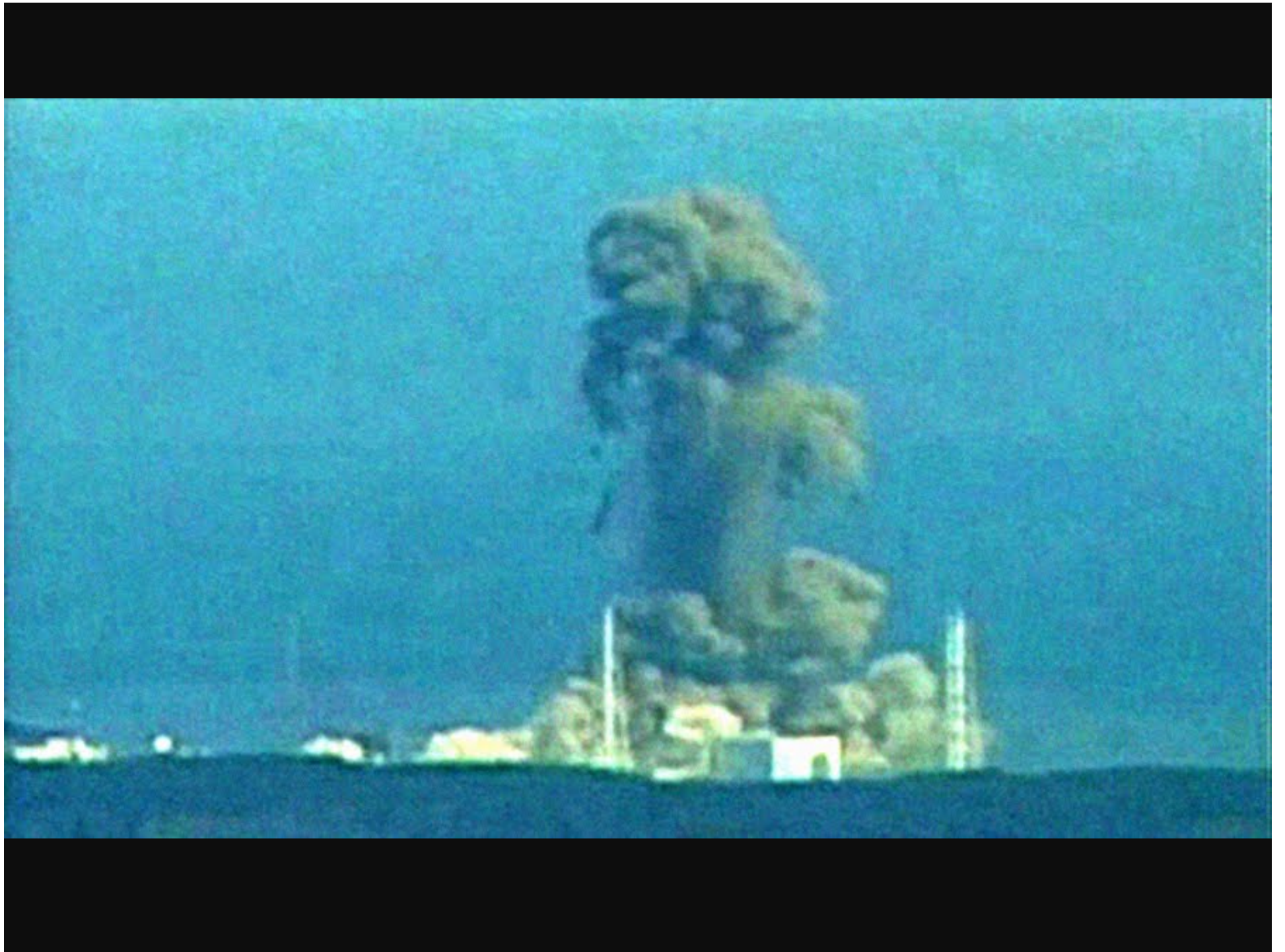
FIRST POSTED MARCH 11, 2011



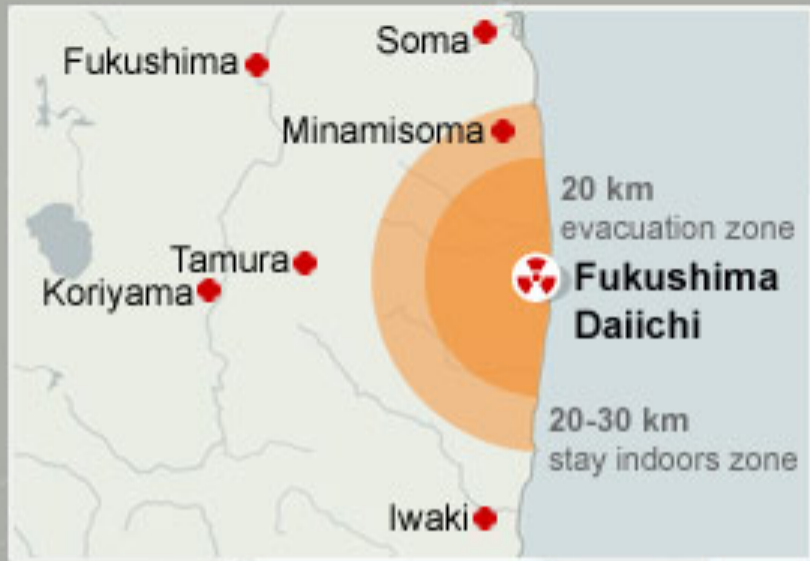
Tsunami

Ten metre-high waves have devastated Japan









Indirect Route

=80%

radiation



water



free radical

DAMAGE

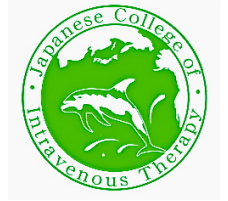


DAMAGE

radiation

=20%

Direct Route



There are many scientific studies demonstrate protective effects of Vitamin C upon radiation-induced cellular injury .

#1: Vitamin C is a protector against external radiation



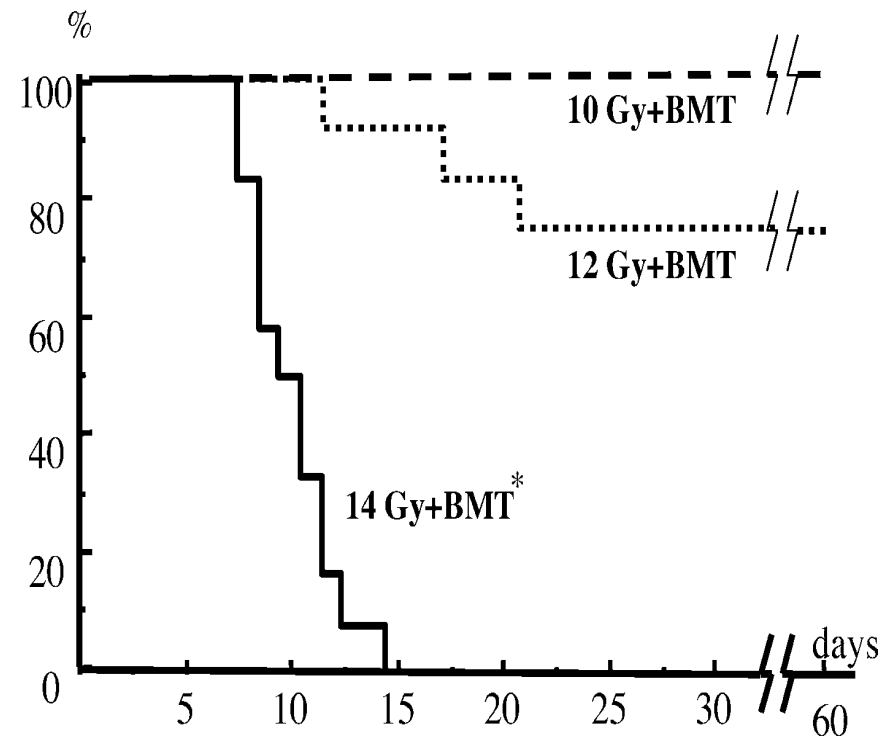
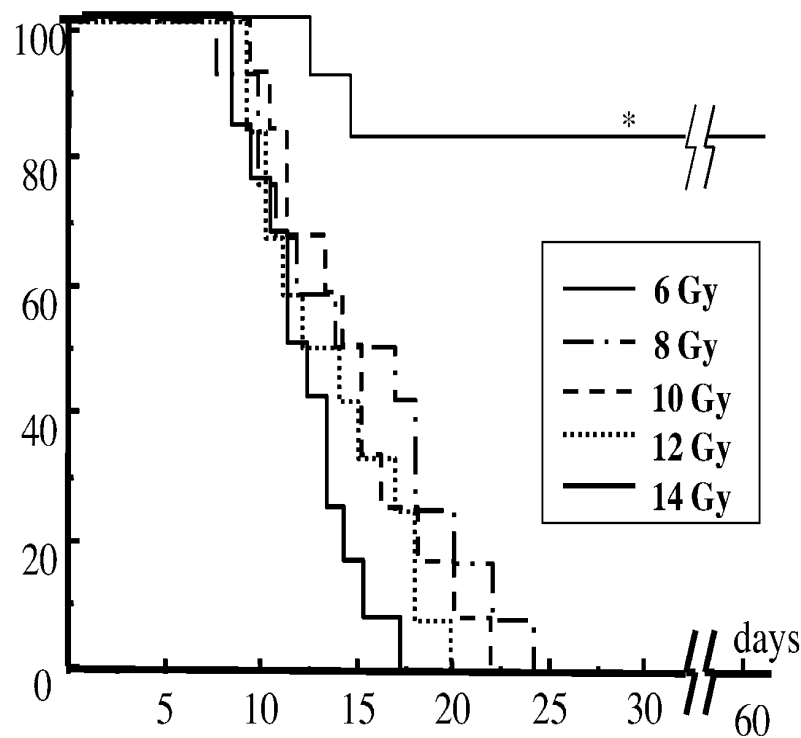
Pretreatment with Ascorbic Acid Prevents Lethal Gastrointestinal Syndrome in Mice Receiving a Massive Amount of Radiation.

From

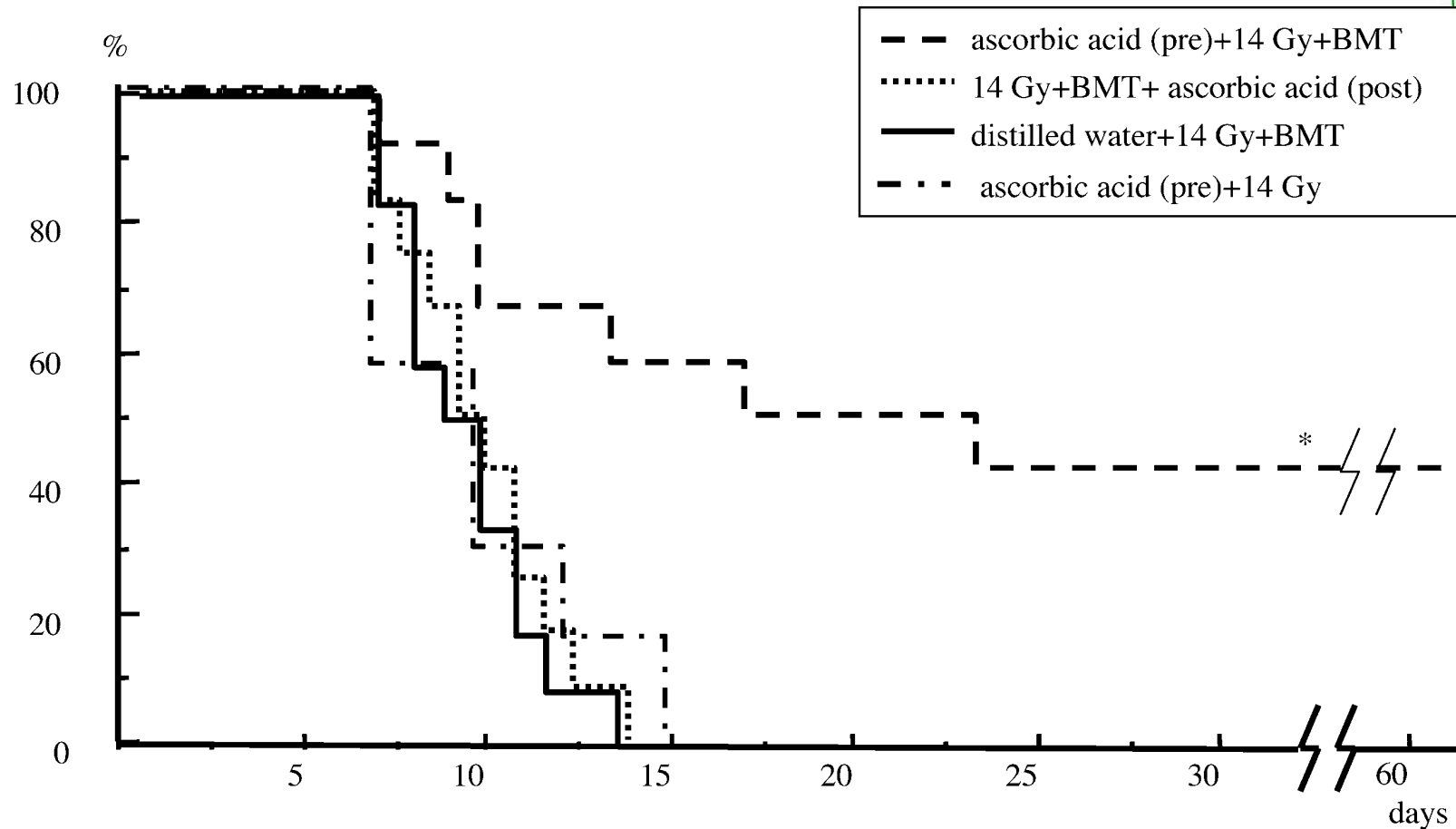
*National Defense Medical College &
Ground Self-Defense Force in Japan*

Yamamoto et al. J Radiat Res **2010**;51:145-15.

<Background> A nuclear power plant accident occurred in 1999 in Japan. Patients who were exposed to high doses of radiation developed severe bone marrow failure, and thereafter underwent stem cell transplantation. However, they developed severe GI damage with diarrhea and bleeding, and eventually died from multiple organ failure.



Mouse could survive less than than 8 Gy whole body irradiation (WBI). Bone marrow transplantation (BMT) 24 h after irradiation rescued mice receiving less than 12 Gy. However, no mice receiving 14 Gy-WBI survived, because of radiation-induced GI syndrome.



Vitamin C (150 mg/kg/day) was orally administered for 3 days, and then the mice underwent 14 Gy irradiation. Pretreatment with ascorbic acid markedly improved radiation-induced intestinal damage, thereby rescuing mice receiving WBI at 14 Gy in combination with BMT.

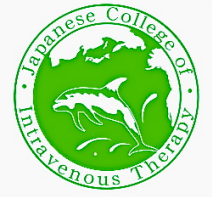
Authors of National Defense Medical College & Ground Self- Defense Force in Japan commented in this article,



“When we undertake the rescue of victims from a radiation-contaminated area just after a radiation accident or terrorism, it is important for rescue team members to [promptly take Vitamin C](#) orally.”

In March 13, 2011, the rescue team of National Self-Defense Force took VITAMIN C when they were in the Fukushima Nuclear Plant.

#2: Vitamin C is a protector against internal radiation



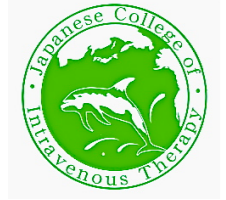
Vitamin C as a Radioprotector Against Iodine-131 In Vivo

Narra VR et al. J NuclMed 1993;34:637-640

Intra-testicular injection of Iodine-131 decreased sperm head survival in mice and is known as an experimental model of internal radiation injury.

Pretreatment of intra-testicular injection of Vitamin C or oral intake of Vitamin C increased sperm head survival after the injection of Iodine-131 in mice.

Thus, vitamin C is a radioprotector when radionuclides are incorporated in the body and deliver the dose in a chronic fashion.



#3: Oral intake of vitamin C prevent radiation-induced DNA damage in humans.

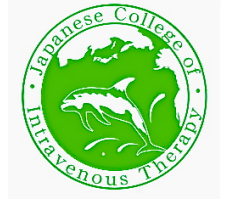
Effect of diet and vitamin C on DNA strand breakage in freshly-isolated human white blood cells.

Green MHL et al. Mutation Research 316(1994)91-102

Blood samples were taken before and 1 h after breakfast with oral ingestion of vitamin C (35 mg/kg).

Samples were immediately irradiated using a Cobalt-60 hotspot and DNA damage was measured using the 'comet' assay.

Vitamin C ingestion showed a significant reduction in DNA damage due to irradiation and its peak effect was 4 hour after intake of vitamin C.



Radiation injury can be protected by anti-oxidative nutritions

- **Oral intake of alpha-lipoic acid and vitamin E reduced urinary radioactivity and oxidative stress in irradiated children in Chernobyl.**
- **There are numerous scientific reports about nutrition as a radio-protector such as Vitamin A, C, E, K, Selenium, Glutathione, Melatonin, probiotics, Resveratrol, etc.**
- **Anti-oxidative reserve of the body is a key role for preventing radiation injury.**



**Official Statement of JCIT about
“Environmental radioactivity and health”
issued in March 29, 2011.**

Working Group of The Statement

Atsuo Yanagisawa M.D. Masashi Uwabu, M.D.
Burton E. Burkson, M.D. Bradford S. Weeks, M.D.
Ronald Hunninghake, M.D. Steven Hickey, Ph.D.
Thomas Levy, M.D.

It is our strongest recommendation that those living in the effected areas regularly take antioxidant supplements such as vitamin C to counteract the negative consequences of long-term low dose radiation exposure as well as to protect the health of coming generations.



Dr. Ron Hunninghake



Dr. Steve Hickey



Dr. Atsuo Yanagisawa



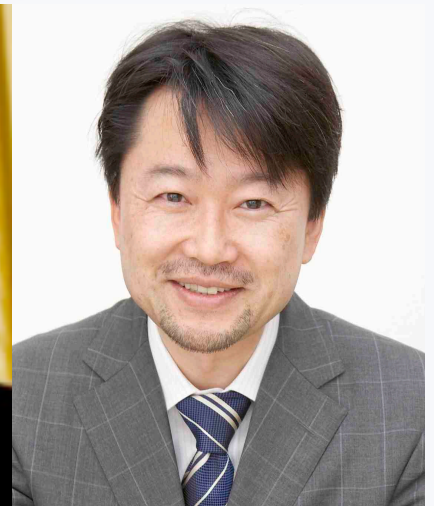
Dr. Thomas E. Levy



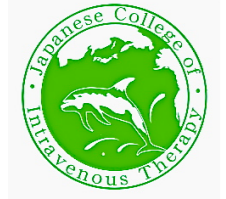
Dr. Burton M. Berkson



Dr. Bradford S. Weeks



Dr. Masashi Uwabu



JCIT - Recommendation

People who have a possible internal and/or external radiation exposure should take anti-oxidative supplements to maintain optimal anti-oxidative reserve on their own body.

Vitamin C	1-3g	3-4 times a day
or Liposomal Vitamin C	1-2 g	twice a day
Alpha-lipoic acid	100-300 mg	twice a day
Selenium	50-200µg	twice a day
Vitamin E	100-200 mg	twice a day

with other essential vitamins and minerals.





JCIT recommendation for people who works at radiation-contaminated area in the Fukushima Nuclear Plant.

(1) Vitamin C 25g i.v. before working at nuclear plant. radiation-contaminated area.

Sterile water	250mL	50% vitamin C	50mL
20% Mg-chloride	5mL	1% B12	1mL
B-complex 100	1mL	10% B6	1mL
25%Dexpanthenol	1mL		

(2) Daily supplements at work

Liposomal Vitamin C	2 g <	three times a day
Alpha-lipoic acid	300 mg <	twice a day
Selenium	200 µg <	twice a day
Vitamin E	200 mg <	twice a day

with other essential vitamins.

**Nameless
Faceless
Heroes**





INTERNATIONAL SOCIETY FOR ORTHOMOLECULAR MEDICINE

Founded 1994

Founding President

Abram Hoffer, MD, PhD
(1917 - 2009)

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- Sweden
- Switzerland
- United Kingdom
- United States of America

Director

Steven Carter

Head Office

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Toronto, Ontario
Canada M2N 1E9

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Fax: 416-733-2352
www.orthomol.org
centre@orthomol.org

Mr. Ritsuo Hosokawa
Minister of Health, Labour and Welfare
1-2-2 Kasumigaweki, Chiyoda-ku, Tokyo 100-8916, Japan

May 1, 2011

Dear Honorable Mr. Hosokawa,

On the occasion of the 40th Orthomolecular Medicine Today Conference held in Toronto, Canada, April 29 through May 1, 2011, we the conference attendees, representing a diverse group of health professionals, including MDs, DOs, NDs, RDs, PhDs, and RNs, are sending you this letter of our deep and sincere concern for the citizens of Japan.

The horrific devastation of a 9.2 earthquake and subsequent killer tsunami has been terribly complicated by the damage to and radiation from the Fukushima nuclear power plant. Even as we write this, we know that heroic efforts are being made by Japanese workers to try and contain the radiation leaks caused by the earthquake and tsunami. As you are well aware, these workers, and untold numbers Japanese people in the near vicinity of the plant are in grave danger of suffering future radiation sickness because of their exposure to dangerously high radiation levels.

The practice of Orthomolecular Medicine began in the mid-1950s with the work of two time Nobel Prize winner, Dr. Linus Pauling in conjunction with Dr. Abram Hoffer. Their breakthrough discoveries on the safe use of high dose antioxidants, B vitamins, and other key nutrients have survived the test of time, with ongoing research demonstrating disease preventing benefits that can be achieved at a very low cost. These very treatments are the scientific substance of this conference.

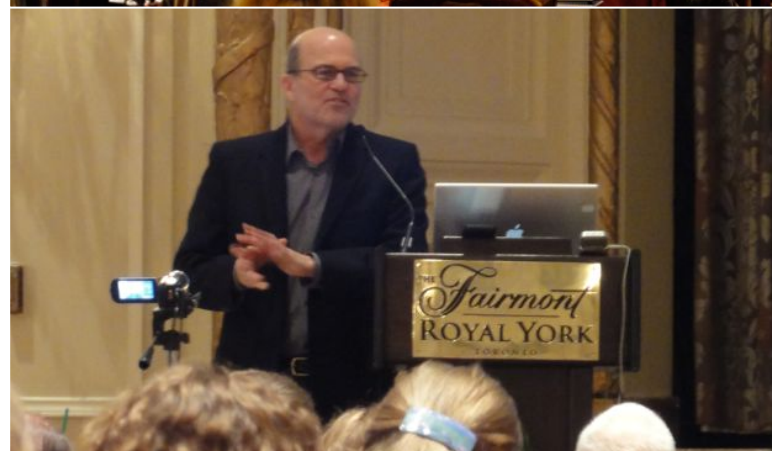
We believe that the official statement of the Japanese College of Intravenous Therapy that appears at the end of this document contains reasonable treatment protocols that can help to prevent many of the devastating effects of radiation sickness in the Japanese workers at Fukushima and the Japanese people who have been or will be affected by the radiation leaks. We urge you to please make these protocols available to the public as a reasonable means of reducing long term suffering from the degenerative diseases associated with radiation sickness. There is no risk if they are implemented, and the potential protective benefits are substantial.

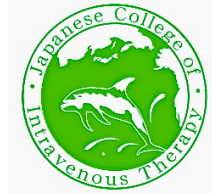
Our signatures on the following page represent our knowledgeable concern for the Japanese people who could benefit so much from these nutritional guidelines. Please, at the very least, publish our letter, so that those who wish to make use of these protocols will at least know of their existence and purpose.

We thank you for taking time in this time of grave emergency to seriously consider our request, based upon the combined expertise of over 60 years of research and clinical experience in making use of these powerful, but thoroughly safe recommendations.

Respectfully submitted,

Steven Carter
Steven Carter
Director





DOOR: GERT E. SCHUTEMAKER

Aftershocks JAPAN IN PERIL
 Nuclear power plants in crisis; 400,000 flee destruction; Thousands flee quake
DEVIATION IN JAPAN
'WE REALLY DON'T KNOW WHAT TO DO'
DEATH TOLL CLIMBS; NUCLEAR FEARS RISE
MELTDOWNNUKE NIGHTMARE GROWS

Orthomoleculair antwoord Radioactiviteit

Van Japanse onderzoekers en een vooruitstrevend arts

Op 11 maart vonden in Japan een aardbeving en een tsunami plaats met desastreuze gevolgen. Het leidde tot een bijzonder ernstig nucleair ongeluk in de kerncentrale van Fukushima. Bescherming tegen radioactieve besmetting van de bevolking, van de reddingswerkers en van de medewerkers van de kerncentrale die trachten de nucleaire ramp onder controle te krijgen is de eerste zorg.

102 ORTHO 3-2011 www.ortho.nl

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Voeding en vitamine D voor verkeersvlieger met MS

Radioactiviteit in Japan

Biochemisch antwoord

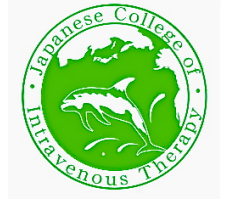
Van Japanse Ministerie van Defensie en een vooruitstrevend arts

VOLUME 25 - NUMMER 2 - 2010

JOURNAL OF ORTHOMOLECULAR MEDICINE

ISOM
 The Official Journal of the
 International Society for Orthomolecular Medicine

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Japanese College of Intravenous Therapy (JCIT)

We are 400 members: 379 physicians

12 dentists

9 veterinarians

More than 10 educational seminars every year.

**IV Vitamin C, IV Lipoic acid, IV Chelation,
Myers' Cocktail, Ukrain, Nutrition therapy, etc.**



The 1st JCIT Symposium of " IVC for Cancer Patients"
Oct 17, 2010, Tokyo, Japan



「点滴療法」で治すことのできる病があります。
私たちは、点滴療法研究会です。



医師・歯科医師
の方はこちらから



点滴療法研究会の活動



マスターズクラブ会員はこちら

ログイン

※パスワードを忘れた方はこちら

マスターズクラブについて

セミナー情報

お問い合わせ

03-6277-3318

メールでのお問い合わせ

資料請求

International College of Intravenous Therapy 設立記念国際シンポジウム
高濃度ビタミンC点滴療法によるがん治療
 ~最新医学情報を明日の診療に導入する~

詳しくはこちら

English

ACTIVITY OF SOCIETY

は最新のエビデンスに基
 々な点滴療法が代替統

SEARCH CLINIC

Check01 点滴療法を選択してください。

- 高濃度ビタミンC療法
- キレーション療法 (Na-EDTA)
- キレーション療法 (Ca-EDTA)
- マイヤーズ・カクテル
- グルタチオン療法
- ビタミン・ミネラル点滴
- 血液クレンジング療法 (オゾン療法)
- プラセンタ療法

■キレーション認定医

Check02 エリアを選択してください。

北海道
 青森県
 岩手県
 宮城県
 秋田県
 山形県
 福島県

※選択済みの都道府県を
 解除するにはクリアボタン
 を押してください。





Effect of Vitamin C and anti-oxidative nutrition on radiation-induced gene expression in Fukushima nuclear plant workers - A pilot study

Atsuo YANAGISAWA, M.D., Ph.D. (1)

Michie IWATA, M.D., Ph.D. (2)

Shuichi AKIYAMA (3)

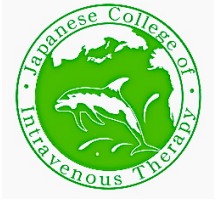
(1) Japanese College of IV Therapy

(2) Iwata Ladies Clinic,

(3) Gene Science Co, Ltd.

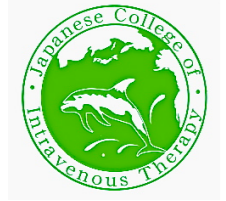


Introduction



In the statement of “Environmental Radioactivity and Health” issued in March 29, 2011, we strongly recommended that “People living in the effected areas should regularly take antioxidant supplements such as vitamin C to counteract the negative consequences of long-term low dose radiation exposure as well as to protect the health of coming generations.” However, TEPCO, government and all medias ignored our statement.

Recently, we examined cancer-related gene expression in 16 men who had worked at severe radiation environment at Fukushima nuclear plant. We also confirmed the improvement of cancer risk score by the supplementation of Vitamin C and other anti-oxidative nutrition.



Methods (1) Study subjects

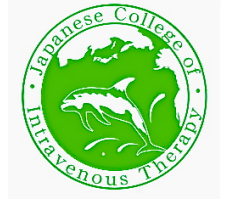
Subjects:

16 men (32-59 yrs.) who worked 5-6 weeks at radiation contaminated area of Fukushima Nuclear Plant after March 12, 2011.

All subjects were temporary worker of sub-sub contractor company of TEPCO.

Work operations at contaminated area:

- > Collecting contaminated water**
- > Measuring radiation level in the plant area**
- > Removal of debris**
- > Operation of heavy machinery**



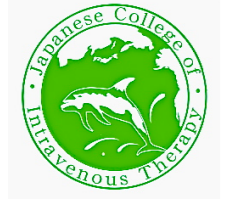
Methods (2) Measurement

Blood sample was obtained few days after the working period. In 4 workers, blood was obtained at before and after the working period.

Measurement:

- (1) Whole blood counts and blood chemistry
- (2) Plasma levels of free DNA
- (3) 47 cancer related gene expression
- (4) Calculate “Cancer Risk Score”

“Cancer Risk Score” was calculated using equation formed by the logistic analysis from the value of 47 cancer-related gene expressions.



Methods (3) Intervention

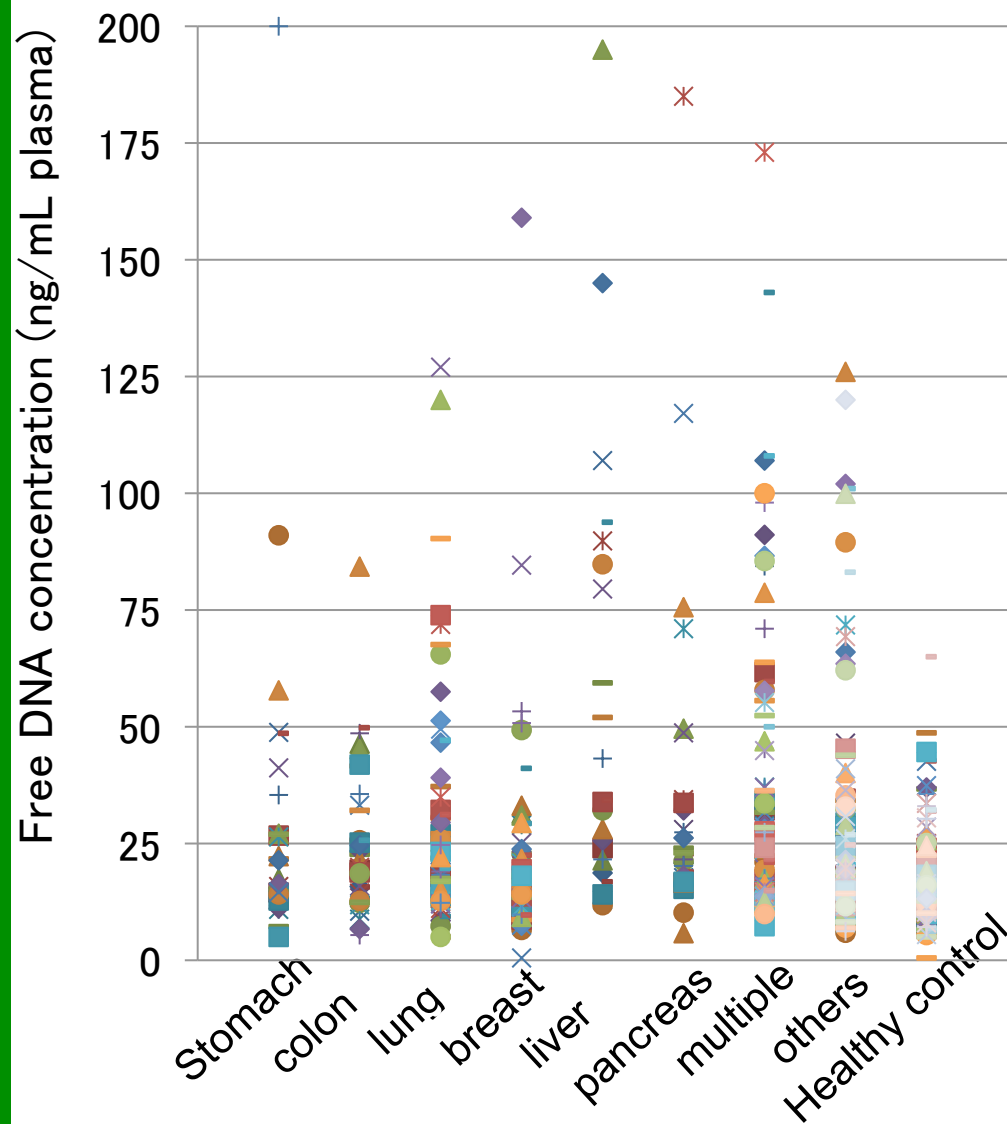
(1) Intravenous Vitamin C 25g prescription

Sterile water	250mL	12.5% MgSO ₄	5mL
50% vitamin C	50mL (25g)		
V-B1: 120mg	V-B2: 2mg	V-B3 : 40mg	
V-B5: 254mg	V-B6: 120mg	V-B12: 1mg	

(2) Daily oral supplements

Lyposomal Vitamin C	1 g	twice a day
Alpha-lipoic acid	300 mg	twice a day
Selenium	200 µg	twice a day
Vitamin E	200 mg	twice a day
Multi-Vitamins		twice a day

Free DNA Concentration



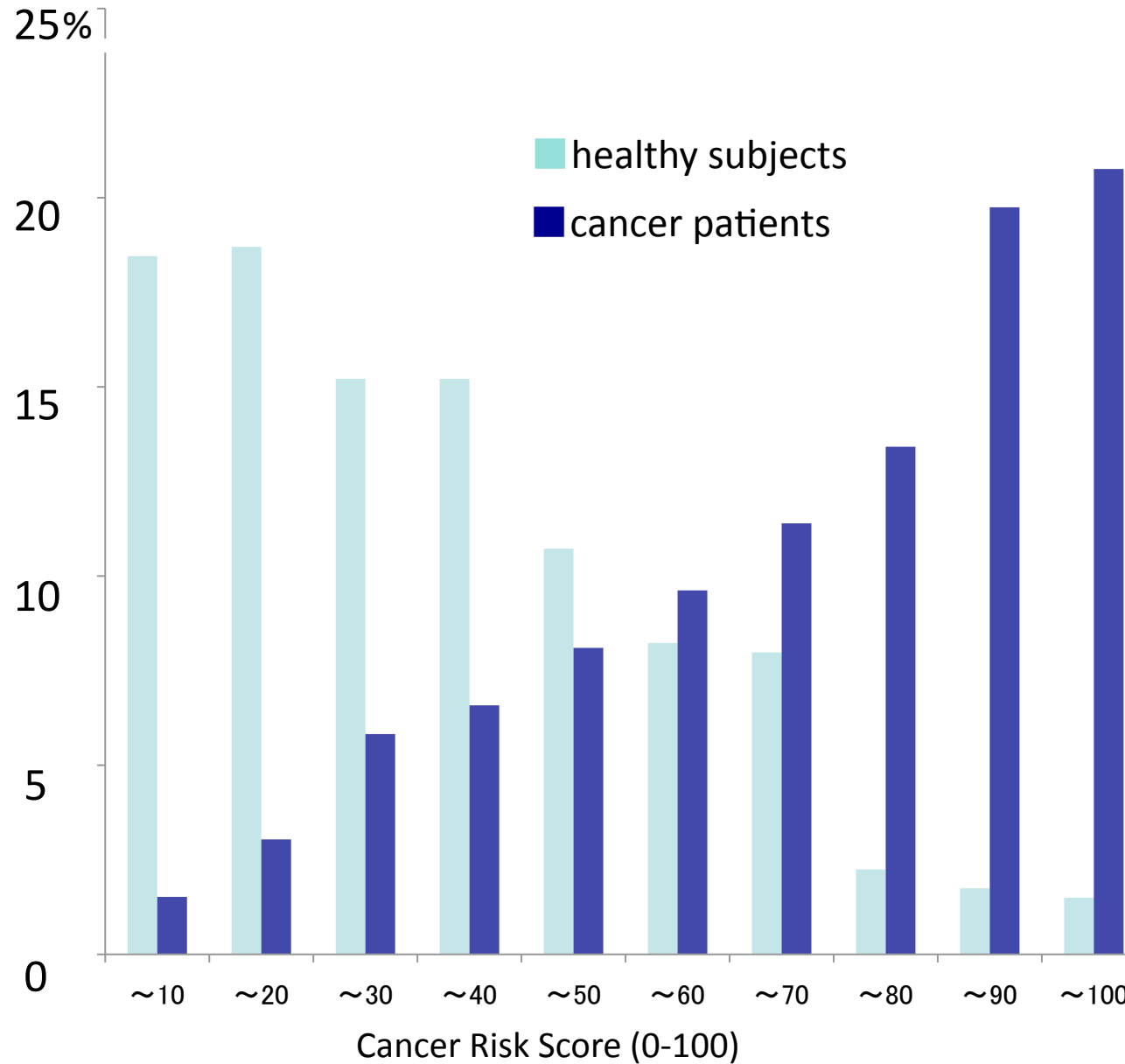
Cut-off value <25ng/mL

>25ng/mL

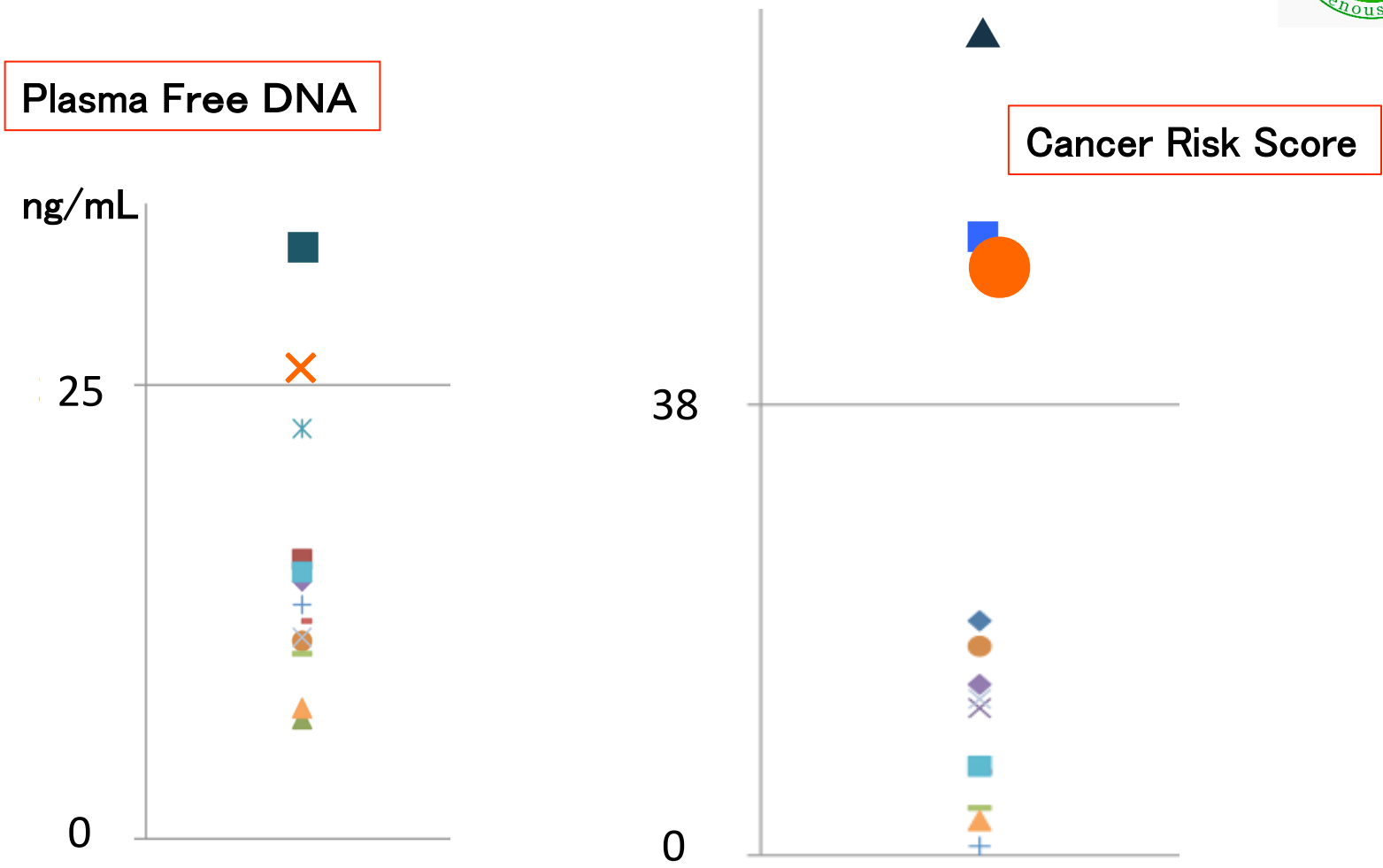
Healthy control 17% (n=400)

Cancer patients 38% (n=400)

Distribution of Cancer Risk Score on Healthy subjects and Cancer Patients.

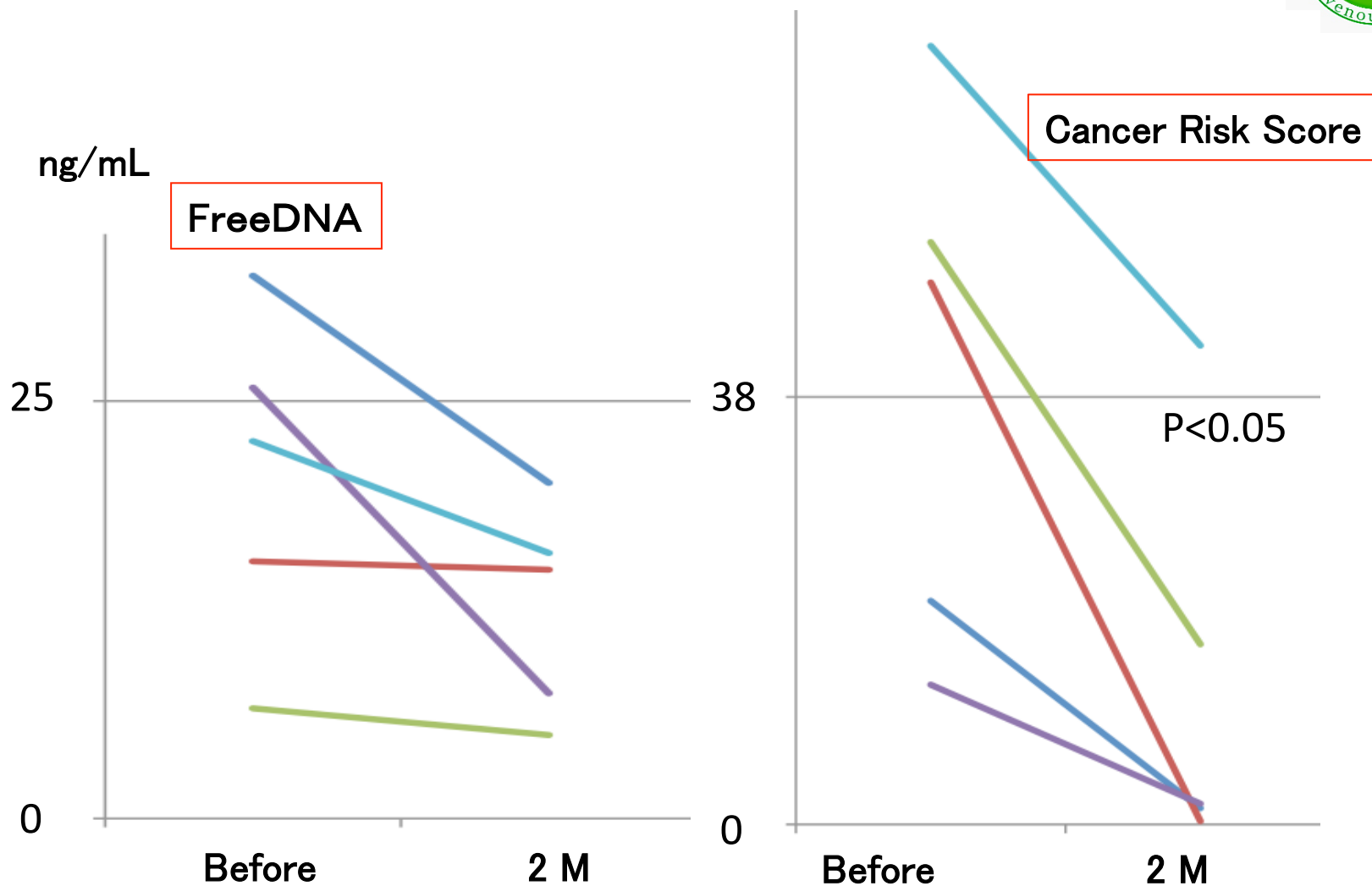
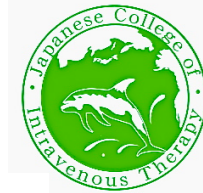


Plasma Free DNA and Cancer Risk Score in Fukushima Workers



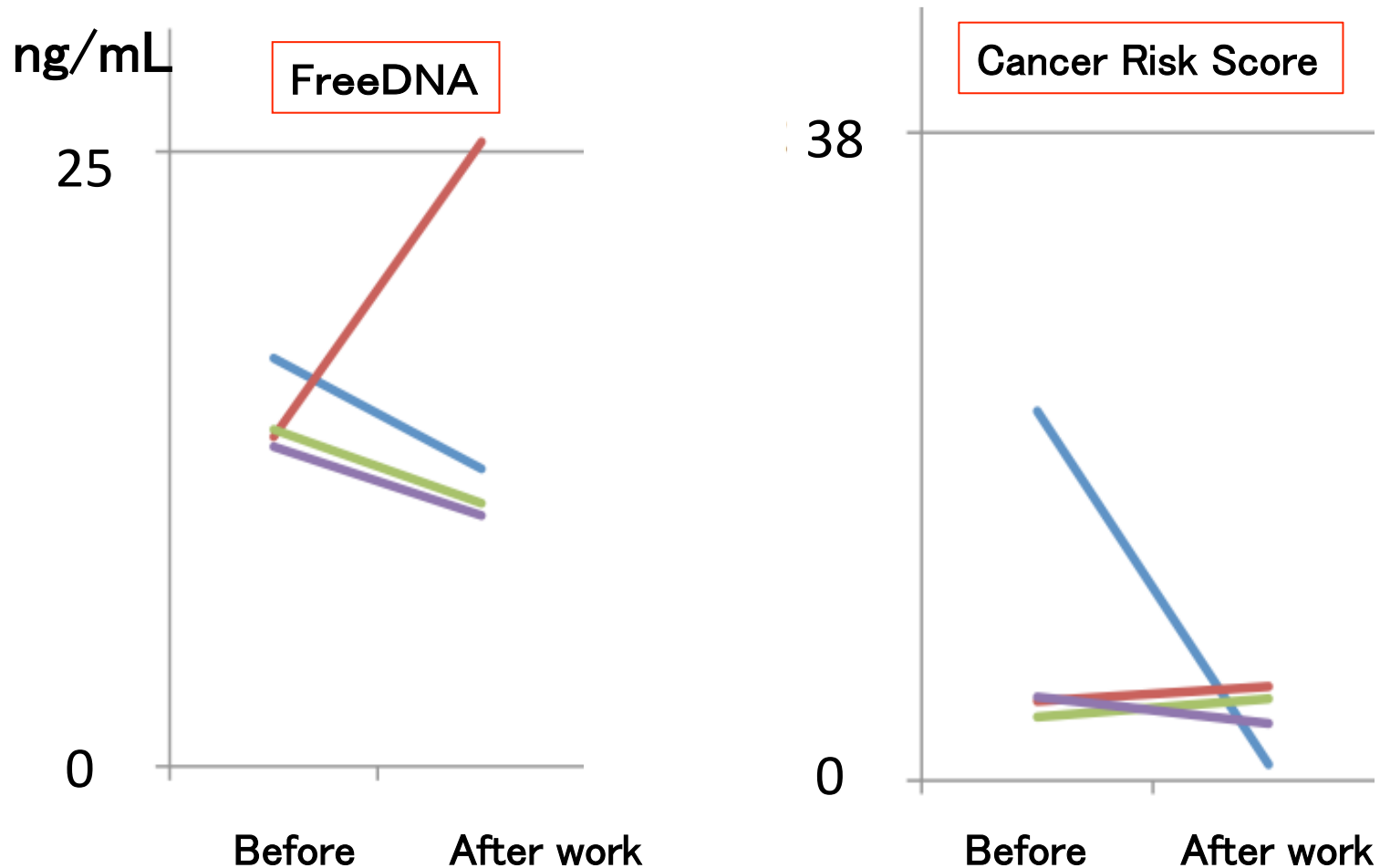
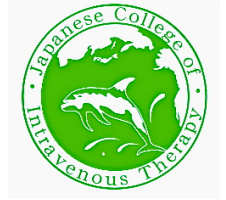
Cancer Risk Score is calculated from the value of 48 cancer-related gene expression using logistic analysis.

Effect of anti-oxidative nutritional intervention on Free DNA and Cancer Risk Score in Fukushima Workers.



Five workers were treated with IVC twice a month and oral anti-oxidative nutritional supplements.

Effect of anti-oxidative nutrition on Free DNA and Cancer Risk Score before and after 5-6 weeks of nuclear plant work at Fukushima.



Four workers took once i.v. Vitamin C (25g) therapy at before they went, and continuously took anti-oxidative supplements during the working period. No significant change was seen in both Free DNA and Cancer Risk Score.

Conclusion



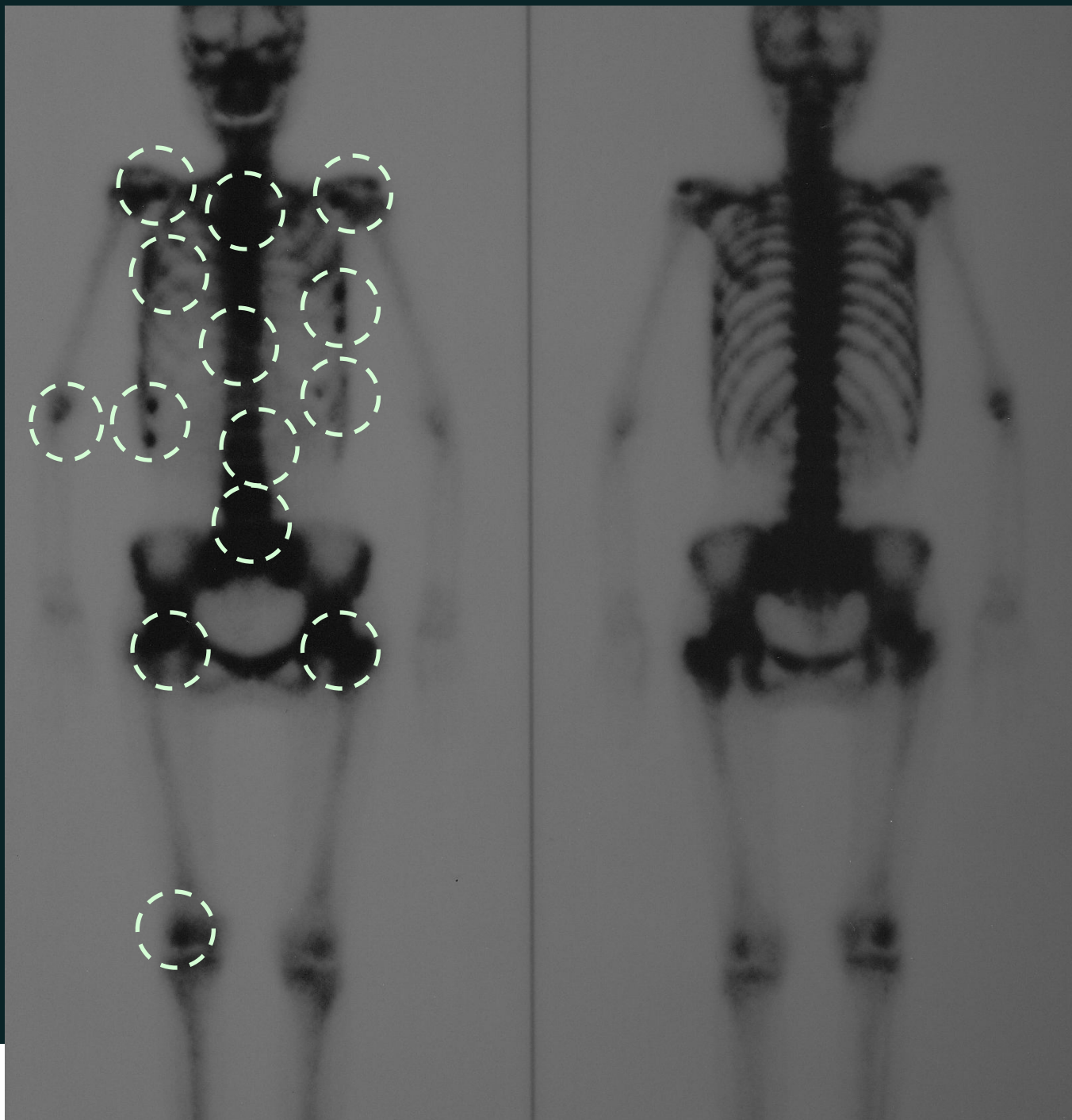
- (1) We evaluated the effects of radiation exposure on cancer related gene expression in 17 men who worked 5–6 weeks at the radiation contaminated area of Fukushima nuclear plant.
- (2) After working, plasma free DNA was increased in 2 of 13 workers, and cancer risk score was increased in 3. After the 2 months intervention with intravenous Vitamin C and oral anti-oxidative nutritional supplements, free DNA returned to normal level and cancer risk score was significantly decreased ($p < 0.05$).
- (3) No significant change was seen in 4 workers who took once i.v. Vitamin C at before working and continuous intake of anti-oxidative supplements during the working period.
- (4) Increase in cancer risk by radiation exposure can be protected by anti-oxidative nutritional intervention. Fukushima workers in the radiation contaminated area should take anti-oxidative nutrition therapy immediately.

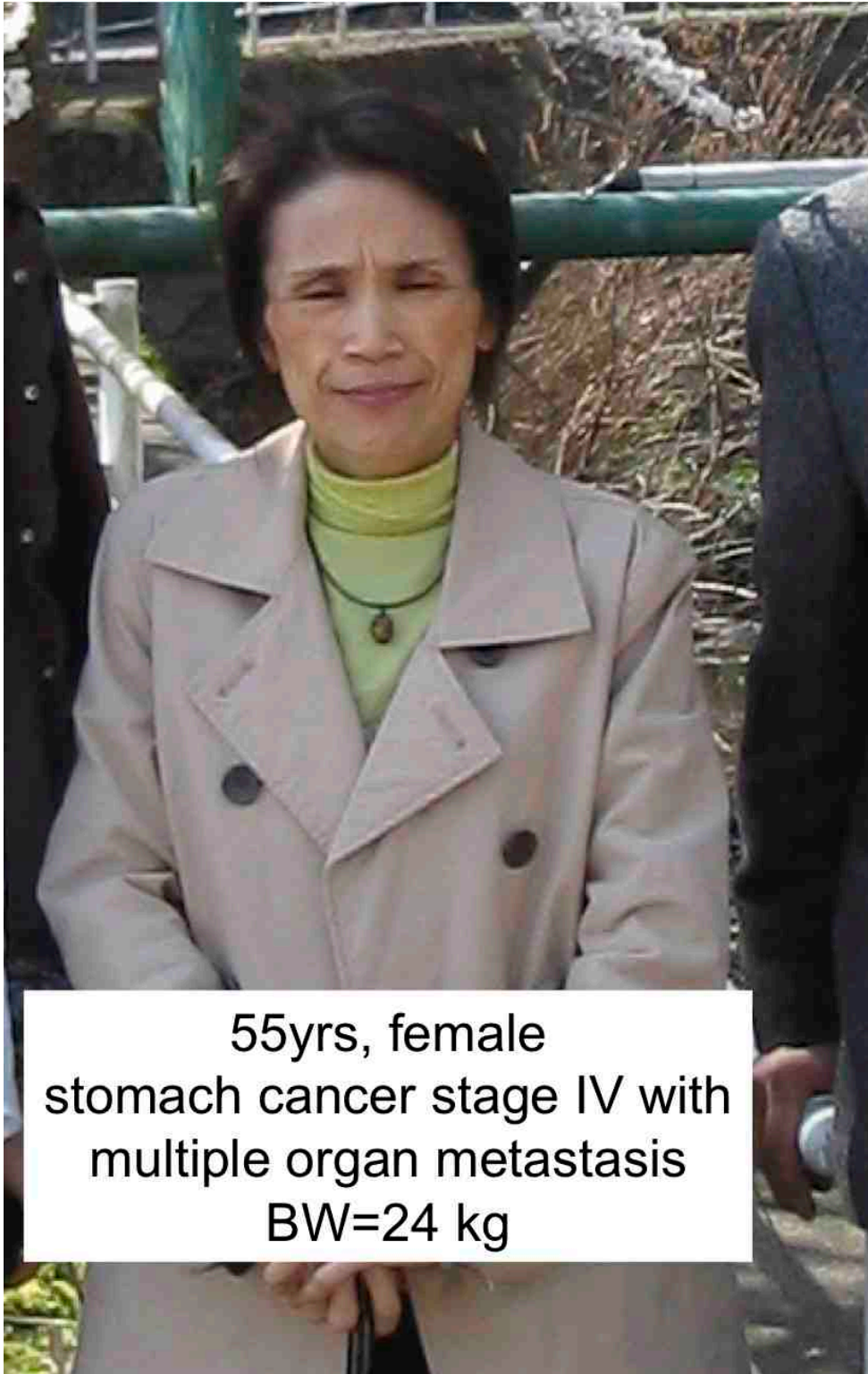


“Only Vitamin C and other anti-oxidative nutritious supplements can save the people’s life from radiation injury.”

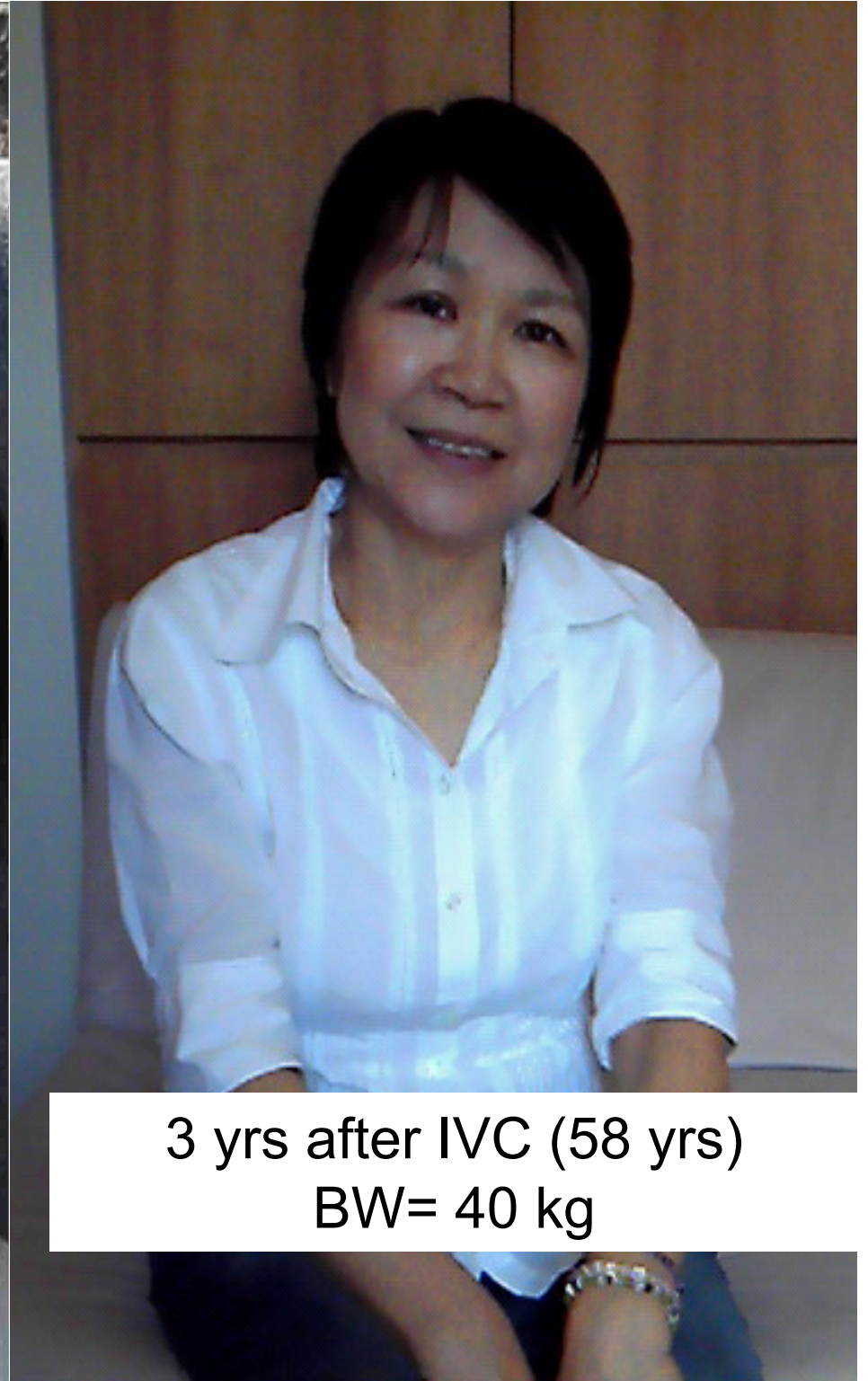
- JCIT working group

54 yrs. female, stomach cancer

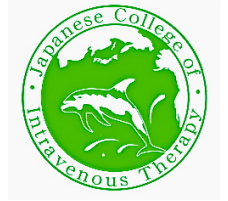




55yrs, female
stomach cancer stage IV with
multiple organ metastasis
BW=24 kg

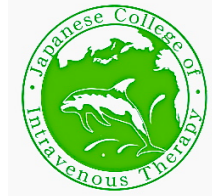


3 yrs after IVC (58 yrs)
BW= 40 kg



My Proposal

Maintaining optimal anti-oxidation reserve by taking Vitamin C and other anti-oxidative nutrition is essential for cancer prevention and treatment, ant-aging, radio-protection and optimum health.



Thank you !



[http://www. iv-therapy.jp](http://www.iv-therapy.jp)