

## 2016年度の業績

### 学術雑誌（原著）

#### 英文論文

1. Zenda Sadamoto, Kojima Takashi, Kato Ken, Izumi Sachiko, Ozawa Taijiro, Kiyota Naomi, Katada Chikatoshi, Tsushima Takahiro, Ito Yoshinori, Akimoto Tetsuo, Hasegawa Yasuhisa, Kanamaru Miyuki, Daiko Hiroyuki  
Multicenter Phase 2 Study of Cisplatin and 5-Fluorouracil With Concurrent Radiation Therapy as an Organ Preservation Approach in Patients With Squamous Cell Carcinoma of the Cervical Esophagus. (査読付) International journal of radiation oncology, biology, physics 96(5), pp.976-984 2016 .12
2. Kawahara Daisuke, Ozawa Shuichi, Nakashima Takeo, Suzuki Tatsuhiko, Tsuneda Masato, Tanaka Sodai, Ohno Yoshimi, Murakami Yuji, Nagata Yasushi  
Absorbed dose and image quality of Varian TrueBeam CBCT compared with OBI CBCT  
Physica medica : PM : an international journal devoted to the applications of physics to medicine and biology : official journal of the Italian Association of Biomedical Physics (AIFB), 32(12),1628-1633 頁,2016/12
3. Mizuno H, Fukuda S, Fukumura A, Nakamura YK, Jianping C, Cho CK, Supriana N, Dung TA, Calaguas MJ, Devi CR, Chansilpa Y, Banu PA, Riaz M, Esentayeva S, Kato S, Karasawa K, Tsujii H.  
Multicentre dose audit for clinical trials of radiation therapy in Asia. J Radiat Res. 2016 .11.17. [Epub ahead of print]
4. Shiba S, Wakatsuki M, Kato S, Ohno T, Okonogi N, Karasawa K, Kiyohara H, Tsujii H, Nakano T, Kamada T, Shozu M; The Working Group of the Gynecological Tumor.  
Carbon-ion radiotherapy for locally advanced cervical cancer with bladder invasion. J Radiat Res. ;57(6):684-690, 2016.11
5. NISHIO Teiji  
Radiosensitization by PARP inhibition to proton beam irradiation in cancer cells  
Biochemical and biophysical research communications, 478(1):234-240,2016  
Doi: 10.1016/j.bbrc.2016.07.062
6. NISHIO Teiji  
An on-site audit system for dosimetry credentialing of intensity-modulated radiotherapy in Japanese Clinical Oncology Group (JCOG) clinical trials  
Physica Medica, 32(8):987-991,2016  
Doi: 10.1016/j.ejmp.2016.07.002
7. IIZUKA Junpei†\*, HASHIMOTO Yasunobu, HASHIMOTO Yaichiro, KONDO Tsunenori, TAKAGI Toshio, NOZAKI Taiji, SHIMIZU Tomokazu, AKIMOTO Tetsuo, ISHIDA Hideki,

- KARASAWA Kumiko, TANABE Kazunari  
Efficacy and feasibility of intensity-modulated radiation therapy for prostate cancer in renal transplant recipients.  
Transplantation proceedings, 48(3),914-917 頁, 2016.4
8. IIZUKA Junpei, HASHIMOTO Yasunobu, HASHIMOTO Yaichiro, KONDO Tsunenori, TAKAGI Toshio, NOZAKI Taiji, SHIMIZU Tomokazu, AKIMOTO Tetsuo, ISHIDA Hideki, KARASAWA Kumiko, TANABE Kazunari  
Efficacy and feasibility of low-dose rate brachytherapy for prostate cancer in renal transplant recipients.  
Transplantation proceedings, 48(3),910-913 頁, 2016.4
9. NISHIO Teiji  
First demonstration of real-time gamma imaging by using a handheld Compton camera for particle therapy  
Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, A831:355-361,2016
10. NISHIO Teiji  
Measurement of proton-induced target fragmentation cross-section in carbon  
Nuclear Physics A, A946:104-116,2016  
Doi: 10.1016/j.nuclphysa.2015.11.007
11. Tanaka Sodai, Nishio Teiji, Matsushita Keiichiro, Tsuneda Masato, Kabuki Shigeto, Uesaka Mitsuru  
Development of proton CT imaging system using plastic scintillator and CCD camera  
Physics in medicine and biology, 61(11):4156-4167,2016  
Doi: 10.1088/0031-9155/61/11/4156

## 邦文総説

1. 西尾禎治  
TrueBeam を用いた VMAT/SBRT の治療経験 臨床的側面  
臨床放射線,金原出版, 61(9):1141-1149,2016.9
2. 西尾禎治  
2014 年医学物理士就労状況アンケート報告  
医学物理, 36(1):2-17,2016

## 著書

1. 唐澤久美子 編集 放射線治療 BOOK2016. Rad Fan 2016 年 11 月臨時増刊、メディカルアイ、2016.10

2. 西尾禎治 部分執筆、外部放射線治療における QA システムガイドライン 2016 年版、1 版 1 巻 35-93 頁、ISBN: 978-4-307-07103-1、金原出版、2016.4.10

#### 学会発表（国際）

1. Karasawa K, Omatsu T, Fukuda S, Kamada T, Yamamoto N, Ishikawa T, Arakawa A, Saito M  
A clinical study of radical APBI using carbon-iron irradiation for patients with stage I breast cancer. American Society for Radiation Oncology 58th Annual Meeting, Int J Radiat Oncol Biol Phys, Boston, 2016.10
2. NISHIO Teiji  
Imaging Device Functions in PTSIM for Irradiation Field Reconstruction in Particle Therapy  
2016 IEEE NSS/MIC, Strasbourg, France, 2016.10
3. Yaichiro Hashimoto, Yuka Ishii, Sawa Kono, Sachiko, Izumi, Kumiko Karasawa  
The efficacy and toxicity of radiotherapy with S-1 for localized pancreatic cancer  
58th American Society for Radiation Oncology (ASTRO), Boston, USA, 2016.9
4. Sawa Kono, Yuka Ishii, Hiroaki. Matsubara, Sachiko Izumi, Yaichiro Hashimoto, Kumiko Karasawa. Is Involved-Field Irradiation Sufficient for Superficial Esophageal Carcinoma?  
米国放射線腫瘍学会 Boston, 2016.9.25
5. IZUMI Sachiko, Karasawa Kumiko, HASHIMOTO Yaichiro, KONO Sawa, ISHII Yuka, Matsubara Hiroaki, Toramatsu Chie  
Radiation Therapy for Esophageal Cancer in Japan  
8th Japanese-Mongolian International Joint Symposium on Surgical Treatment of Digestive Tract Cancers Ulaanbaatar, Mongolia. 2016.8.27
6. S Tanaka, T Nishio, K Matsushita, M Tsuneda, S Kabuki, M Uesaka  
Development of Proton CT Imaging System Using Thick Scintillator and CCD Camera  
AAPM 58 Annual Meeting, Washington DC, 2016.8
7. NISHIO Teiji  
Energy spectral study on Lipiodol after trans-arterial chemoembolization using the flattened and unflattened photon beams  
AAPM 58 Annual Meeting, Washington DC, 2016.8
8. Tsuneda Masato, Nishio Teiji, Saito Akito, Hioki Kazunari, Kawahara Daisuke, Ochi Yusuke, Matsushita Keiichiro, Tanaka Sodai, Ozawa Shuichi, Nagata Yasushi  
Kompeito-shot: Development of a novel verification system for 3D beam alignment including the sag of gantry head  
AAPM 58 Annual Meeting, Washington D.C., USA, 2016.7.31

9. Matsubara Hiroaki, Naruhiro Matsufuji, Hiroshi Tsuji, Naoyoshi Yamamoto, Kumiko Karasawa, Mio Nakajima, Wataru Takahashi, Masataka Karube  
Assessment of Skin Erythema in Digital Images Caused by Radiotherapy  
The 4th Taiwan-Japan Radiation Oncology Symposium  
Taipei, Taiwan 2016.6
10. Karasawa K, Omatsu T, Wakatsuki M, Fukuda S, Kamada T, Yamamoto N, Ishikawa T, Arakawa A, Saito M.  
Carbon-iron radiotherapy for stage I breast cancer. 55th Annual Conference of the Particle Therapy Co-operative Group, Prague, 2016.5
11. H. Matsubara, C. Bopp, M. Fukuoka, Y. Hanyu, K. Karasawa, J. Kataoka, Y. Koba, K. Masamune, N. Matsufuji, S. Ota.  
Progress in development of in vivo dosimeter specialized for heavy ion particle therapy  
PTCOG55, Prague at Czech Republic 2016.5
12. NISHIO Teiji  
Development of tumor response observation system for dose-volume delivery guided particle therapy  
ESTRO 35, Turin, 2016.5
13. NISHIO Teiji  
Development of activity pencil beam algorithm using nuclear reaction for innovative proton therapy  
ESTRO 35, Turin, 2016.5
14. NISHIO Teiji  
Commissioning of the Eclipse Proton™ for proton therapy system with a patient specific aperture placed downstream of a range compensator  
PTCOG 55, Prague, 2016.5
15. Yaichiro Hashimoto, Yuka Ishii, Sawa Kono, Sachiko Izumi, Katsuya Maebayashi, Jumpei Iizuka, Kazunari Tanabe, Tetsuo Akimoto, Norio Mitsuhashi, and Kumiko Karasawa  
Outcome and toxicities of high-dose rate brachytherapy combined with hypofractionated external beam radiation therapy for high-risk prostate cancer  
35th European Society for Radiotherapy & Oncology, Turin, Italy, 2016.4
16. Masato Tsuneda, Teiji Nishio, Akito Saito, Kazunari Hioki, Takuro Okumura, Daisuke Kawahara, Yusuke Ochi, Keiichiro Matsushita, Tatsuhiko Suzuki, Sodai Tanaka, Shuichi Ozawa and Yasushi Nagata.,  
“Kompeito-Shot: Development of a novel verification system for 3D beam alignment”,  
ICMP2016 Bangkok

## 学会発表（国内）

1. 橋本弥一郎, 石井由佳, 河野佐和, 泉佐知子, 飯塚淳平, 唐澤久美子  
Adjuvant and salvage radiotherapy after radical prostatectomy for prostate cancer  
第 29 回日本放射線腫瘍学会, 京都, 2016 年 11 月 26 日
2. 松原礼明, 唐澤久美子, 正宗賢, 福岡美代子, 羽生裕二  
重粒子線治療に特化した生体内用小型線量計開発の進捗. 日本放射線腫瘍学会第 29 回  
学術大会 京都, 2016 年 11 月
3. 西尾禎治  
線量計算のためのボルツマン輸送方程式における角度変数の適切な離散化法の検討  
日本放射線腫瘍学会第 29 回学術大会, 京都, 2016.11
4. 西尾禎治  
陽子線治療施設の訪問調査のための肝臓模擬ファントムの線量測定運用試験  
日本放射線腫瘍学会第 29 回学術大会, 京都, 2016.11
5. 河野佐和, 橋本 弥一郎, 石井 由佳, 泉 佐知子, 唐澤 久美子, 岡本 高宏, 三橋 紀夫.  
甲状腺未分化癌における放射線治療の役割. 第 54 回日本癌治療学会学術集会 横浜,  
2016 年 10 月 21 日
6. 西尾禎治  
プラスチックシンチレータを用いた線量分布測定の基礎検討  
第 44 回日本放射線技術学会秋季学術大会, 大宮, 2016.10
7. 西尾禎治  
JCOG1315 多施設臨床試験肝臓陽子線治療における医学物理検証法  
第 13 回日本粒子線治療臨床研究会, 松本, 2016.10
8. ◎西尾禎治  
粒子線治療における腫瘍線量応答性観測システムの研究開発  
第 13 回日本粒子線治療臨床研究会, 松本, 2016.10
9. ◎西尾禎治  
陽子線がん治療における体内中標的原子核破砕反応の医学利用に関する研究  
日本物理学会 2016 年秋季大会, 宮崎, 2016.9
10. 西尾禎治, 恒田雅人  
Verification of positional resolution of newly developed respiratory curve measurement  
system using near infrared radiation  
The 112th Scientific Meeting of JSMP, 沖縄, 2016.9
11. 西尾禎治, 恒田雅人  
Measurement of the production cross-section in target nuclear fragmentation reactions  
for proton therapy (3)  
The 112th Scientific Meeting of JSMP, 沖縄, 2016.9

12. 西尾禎治  
Development of proton CT system towards a high precision proton therapy  
The 112th Scientific Meeting of JSMP, 沖縄, 2016.9
13. 西尾禎治  
The radioactive contamination measurement using Compton Camera  
The 112th Scientific Meeting of JSMP, 沖縄, 2016.9
14. 西尾禎治  
Comparison of numerical methods to solve Boltzmann transport equation for dose calculation  
The 112th Scientific Meeting of JSMP, 沖縄, 2016.9
15. 西尾禎治  
Analysis of DEF and energy spectrum with PHITS on Lipiodol using the flattened and unflattened photon beams  
The 112th Scientific Meeting of JSMP, 沖縄, 2016.9
16. 西尾禎治  
Performance evaluation of an all-sky RI imaging monitor using Compton camera technique  
The 112th Scientific Meeting of JSMP, 沖縄, 2016.9
17. 出雲渉, 樋口亮太, 谷澤武久, 植村修一郎, 松永雄太郎, 橋本弥一郎, 古川徹, 徳重克年, 山本雅一  
borderline resectable 膵癌に対する化学放射線療法の治療成績の検討  
第 71 回日本消化器外科学会総会, 徳島, 2016 年 7 月 14 日
18. IZUMI Sachiko, Karasawa Kumiko, MAEBAYASHI Katsuya, HASHIMOTO Yaichiro, KONO Sawa, ISHII Yuka, YOSHIHARA Toshio  
Postoperative radiotherapy for patients with malignant parotid tumor  
The 75th annual meeting of the Japan Radiological Society Yokohama, Japan.2016.4.16
19. 出雲渉, 樋口亮太, 谷澤武久, 植村修一郎, 橋本弥一郎, 清水京子, 林和彦, 古川徹, 徳重克年, 山本雅一  
膵癌に対する化学放射線療法の治療成績の検討  
第 116 回日本外科学会定期学術集会, 大阪, 2016 年 4 月 14 日
20. Hiroaki Matsubara, Cécil Bopp, Miyoko Fukuoka, Yuji Hanyu, Kumiko Karasawa, Jun Kataoka, Yusuke Koba, Ken Masamune, Naruhiro Matsufuji, and Shunsuke Ota  
重粒子線治療に特化した生体内用小型線量計開発. 第 1 1 1 回日本医学物理学学会学術大会報文 横浜, 2016 年 4 月
21. 西尾禎治  
Development of Radiation Simulator for Reconstructing Irradiation Field in Particle

Radiotherapy

The 55th Annual Conference of Japan Society for Medical and Biological Engineering,  
富山, 2016.4

22. 西尾禎治, 恒田雅人

Cumulative segmental MU-weighted field edges for estimating the deviation in the  
absolute dose verification of Intensity-Modulated Radiation Therapy

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

23. 西尾禎治, 恒田雅人

Measurement of production cross-section in target nuclear fragmentation reactions for  
proton therapy (2)

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

24. 西尾禎治, ©恒田雅人

Kompeito-shot: A study of systematic error of verification system for three dimensional  
beam alignment

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

25. 西尾禎治

Development of a GPU-based optimization method for dose distribution of proton beam  
scanning

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

26. 西尾禎治

Automatic conversion of body surface 3d mesh model to ROI data with portable 3d  
scanner

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

27. 西尾禎治

Development of a postal audit method for IGRT credentialing in multi-institutional clinical  
trials in Japan

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

28. 西尾禎治

Development of an all-sky RI imaging monitor for high-dose-rate circumstance

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

29. 西尾禎治

Commissioning of the Eclipse Proton™ Treatment Planning System for Proton Line  
Scanning Therapy

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

30. 西尾禎治

Basis development of Electron-Tracking Compton Camera for monitoring a prompt

gamma ray in Particle beam therapy

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

31. ◎西尾禎治

Study of measurement method of bio-information using near infrared radiation

The 111th Scientific Meeting of JSMP, 横浜, 2016.4

**特別講演・シンポジウム・ワークショップ（国際）**

1. Karasawa K

Summary of the clinical data: Hypo-fractionated RT for Post Operative Breast. Forum for Nuclear Cooperation in Asia FY2016 Workshop on Radiation Oncology, Surabaya, Indonesia, 2016.10

2. Karasawa K

Preliminary Result of Carbon-Ion Radiotherapy for Early Breast Cancer. Symposium on the Latest Advances of Radiation Oncology, Chenzhou, China, 2016.9

3. Karasawa K

Preliminary Result of Carbon-Ion Radiotherapy for Early Breast Cancer. The 4th Taiwan-Japan Radiation Oncology Symposium, Taipei, Taiwan, 2016.6

4. Karasawa K

Accelerated Partial Breast Irradiation (APBI) for Conserving Breast. ESTRO School 2016, Tokyo, Japan, 2016.5

**特別講演・シンポジウム・ワークショップ（国内）**

1. 西尾禎治

医学物理学分野における微小空間線量測定の現状と展望

応用物理学会放射線分科会医療放射線技術研究会 放射線検出器の研究シーズと医療現場ニーズに関するシンポジウム（第3弾），東京, 2017.1

2. 西尾禎治

がんの狙い撃ちを可能とする陽子線技術（特別講演）

第4回成田記念陽子線市民講座，豊橋, 2017.1

3. 唐澤久美子

晩期放射線有害事象に対する HBO の経験と期待、高気圧環境・潜水医学会，東京、2016.12

4. 西尾禎治

医学物理士の大学院教育（特別講演）

広島大学病院「世界最高水準の放射線治療チームの育成と地域及びアジア近隣諸国への展開」プロジェクト 放射線治療におけるチーム医療の現状と将来展望, 広島, 2016.12



5. 唐澤久美子

Carbon-ion Radiotherapy for stage I Breast Cancer

日本乳房オンコプラスチックサージェリー学会、千葉、2016.10

6. 唐澤久美子

晩期放射線有害事象に対する HBO の経験と期待、高気圧環境・潜水医学会、東京、  
2016.12

一億総活躍社会における女性医師、日本腎臓学会、2016.6