

<MOLDCARE Research Paper List> Breast (general)

Year/Month	Magazine, Publication, Media or Event	Title	Authors	Part of the Body / Case	Equipment / Treatment Method	Patient Positioning Device set up used during Research
2004/08	International Journal of Radiation Oncology Biology Physics Volume 59, Issue 5	Results of the first prospective study of carbon ion radiotherapy for hepatocellular carcinoma with liver cirrhosis	Hirotoishi Kato, Hirohiko Tsujii, Tadaaki Miyamoto, Jun-etsu Mizoe, Tadashi Kamada, Hiroshi Tsuji, Shigeru Yamada, Susumu Kandatsu, Kyosun Yoshikawa, Takayuki Obata, Hidefumi Ezawa, Shinroku Morita, Minoru Tomizawa, Naoki Morimoto, Junichi Fujita, Masao Ohto: Liver Cancer Working Group	Liver	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic shell
2005/11	International Journal of Radiation Oncology Biology Physics Volume 63, Issue 4 (Abstract)	Hypofractionated radiotherapy with carbon ion beams for prostate cancer	Hiroshi Tsuji, Takeshi Yanagi, Hitoshi Ishikawa, Tadashi Kamada, Jun-etsu Mizoe M.D., Tatsuki Kanai, Shinroku Morita, Hirohiko Tsujii, Working Group for Genitourinary Tumors	Prostate	Carbon Ion Radiotherapy	Moldcare
2006/11	International Journal of Radiation Oncology Biology Physics Volume 66, Issue 4	Risk factors of late rectal bleeding after carbon ion therapy for prostate cancer	Hitoshi Ishikawa, Hiroshi Tsuji, Tadashi Kamada, Naoki Hirasawa, Takeshi Yanagi, Jun-Etsu Mizoe, Koichiro Akakura, Hiroyoshi Suzuki, Jun Shimazaki, Hirohiko Tsujii	Prostate	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic shell
2010/04	Radiotherapy and Oncology 96 (2010)	Compensatory enlargement of the liver after treatment of hepatocellular carcinoma with carbon ion radiotherapy – Relation to prognosis and liver function	Hiroshi Imada, Hirotoishi Kato, Shigeo Yasuda, Shigeru Yamada, Takeshi Yanagi, Ryusuke Hara, Riwa Kishimoto, Susumu Kandatsu, Shinichi Minohara, Jun-etsu Mizoe, Tadashi Kamada	Liver	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic shell
2010/05	Radiotherapy and Oncology 96 (2010)	Comparison of efficacy and toxicity of short-course carbon ion radiotherapy for hepatocellular carcinoma depending on their proximity to the porta hepatis	Hiroshi Imada, Hirotoishi Kato, Shigeo Yasuda, Shigeru Yamada, Takeshi Yanagi, Riwa Kishimoto, Susumu Kandatsu, Jun-etsu Mizoe, Tadashi Kamada, Osamu Yokosuka, Hirohiko Tsujii	Liver	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic shell
2012/04	International Journal of Urology Volume 19, Issue 4	Carbon-ion radiation therapy for prostate cancer	Hitoshi Ishikawa, Hiroshi Tsuji, Tadashi Kamada, Koichiro Akakura, Hiroyoshi Suzuki, Jun Shimazaki, Hirohiko Tsujii, the Working Group for Genitourinary Tumors	Prostate	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic sheet
2015/04	Radiation Oncology 10	Radiation-induced rib fracture after stereotactic body radiotherapy with a total dose of 54–56 Gy given in 9–7 fractions for patients with peripheral lung tumor: impact of maximum dose and fraction size	Masahiko Aoki, Mariko Sato, Katsumi Hirose, Hiroyoshi Akimoto, Hideo Kawaguchi, Yoshiomi Hatayama, Shuichi Ono & Yoshihiro Takai	Lung	Mitsubishi Electric EXL-20TP / SBRT	Moldcare
2015/05	British Journal of Radiology Vol. 88, No. 1051	Variation in patient position and impact on carbon-ion scanning beam distribution during prostate treatment	S Mori, T Inaniwa, K Miki, K Tanimoto, M Tajiri, D Kuroiwa, M Nakao, Y Shiraishi, K Shibayama and H Tsuji	Prostate	Carbon Ion Radiotherapy	To be added
2015/10	Radiation Oncology 10	Feasibility of accelerated partial breast irradiation with volumetric-modulated arc therapy in elderly and frail patients	Olivier Riou, Pascal Fenoglietto, Céline Bourcier, Olivier Lauche, Fatiha Boulbair, Marie Charissoux, Angélique Ducteil, Norbert Aillères, Claire Lemanski & David Azria	Breast	IMRT, VMAT	Moldcare + arm and knee support
2016/05	International Journal of Radiation Oncology Biology Physics Volume 95, Issue 1 (Abstract)	Carbon Ion Radiation Therapy With Concurrent Gemcitabine for Patients With Locally Advanced Pancreatic Cancer	Makoto Shinoto, Shigeru Yamada, Kotaro Terashima, Shigeo Yasuda MD, Yoshiyuki Shioyama, Hiroshi Honda, Tadashi Kamada, Hirohiko Tsujii, Hiromitsu Saisho, Working Group for Pancreas Cancer	Pancreatic	Carbon Ion Radiotherapy	Moldcare
2016/08	World Journal of Radiology Vol. 8 (8)	Helical tomotherapy and volumetric modulated arc therapy: New therapeutic arms in the breast cancer radiotherapy	Olivier Lauche, Youlia M Kirova, Pascal Fenoglietto, Emilie Costa, Claire Lemanski, Céline Bourcier, Olivier Riou, David Tiberi, François Campana, Alain Fourquet, David Azria	Breast	HT (helical tomotherapy) and VMAT (volumetric modulated arc therapy)	Moldcare used with VMAT, Cervical thermoplastic mask used with HT
2017/01	Physica Medica Volume 33	Fiducial marker matching versus vertebral body matching: Dosimetric impact of patient positioning in carbon ion radiotherapy for primary hepatic cancer	Satoshi Abe, Yoshiki Kubota, Kei Shibuya, Yoshinori Koyama, Takanori Abe, Tatsuya Ohno, Takashi Nakano	Hepatic	Carbon Ion Radiotherapy	Moldcare (BR 3) + Kuraray shell fitter mask
2017/04	Journal of Thoracic Oncology Volume 12, Issue 4	A Dose Escalation Clinical Trial of Single-Fraction Carbon Ion Radiotherapy for Peripheral Stage I Non-Small Cell Lung Cancer	Naoyoshi YamamotoMD, PhD, Tadaaki MiyamotoMD, PhD, Mio NakajimaMD, PhD, Masataka KarubeMD, Kazuhiko HayashiMD, PhD, Hiroshi TsujiMD, PhD, Hirohiko TsujiiMD, PhD, Tadashi KamadaMD, PhD, Takehiko FujisawaMD, PhD	Lung	Carbon Ion Radiotherapy	Moldcare or Kuraray Shellfitter thermoplastic mask
2017/04	Reports of Practical Oncology and Radiotherapy 22 (2)	SBRT planning for liver metastases: A focus on immobilization, motion management and planning imaging techniques	Olivier Riou, Carmen Llacer Moscardo, Pascal Fenoglietto, Emmanuel Deshayes, Raphaël Tetreau, Jessica Molinier, Alexis Lenglet, a Eric Assenat, Marc Ychou, Boris Guu, Norbert Aillères, Ludovic Bedos and David Azria	Liver	CyberKnife®, Linac / SBRT, IMRT, VMAT	Moldcare
2017/05	Radiation Oncology 12	Prognostic analysis of radiation pneumonitis: carbon-ion radiotherapy in patients with locally advanced lung cancer	Kazuhiko Hayashi, Naoyoshi Yamamoto, Masataka Karube, Mio Nakajima, Naruhiro Matsufuji, Hiroshi Tsuji, Kazuhiko Ogawa & Tadashi Kamada	Lung	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter thermoplastic
2018/02	Anticancer Research Vol. 38 (2)	A Phase I Study of Hypofractionated Carbon-ion Radiotherapy for Stage III Non-small Cell Lung Cancer	Jun-ichi Saitoh, Katsuyuki Shirai, Takanori Abe, Nobuteru Kubo, Takeshi Ebara, Tatsuya Ohno, Koichi Minato, Ryusei Saito, Masanobu Yamada, Takeshi Nakano and The Working Group of the Lung Tumor	Lung	Hypofractionated Carbon Ion Radiotherapy	Moldcare + Sanyo Polymer Industrial Shellfitter thermoplastic shell
2018/03	Cancer Science Volume 109, Issue 5	Feasibility of carbon-ion radiotherapy for re-irradiation of locoregionally recurrent, metastatic, or secondary lung tumors	Kazuhiko Hayashi, Naoyoshi Yamamoto, Masataka Karube, Mio Nakajima, Naruhiro Matsufuji, Kazuhiko Ogawa, Tadashi Kamada	Lung	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter thermoplastic
2018/09	Cancers 2018, 10(9), 338	Phase I Study of Carbon Ion Radiotherapy and Image-Guided Brachytherapy for Locally Advanced Cervical Cancer	Tatsuya Ohno, Shin-ai Noda, Kazutoshi Murata, Yuya Yoshimoto, Noriyuki Okonogi, Ken Ando, Tomoaki Yamaki, Shingo Kato, Takashi Hirakawa, Tatsuya Kanuma, Takashi Mingishi, Takashi Nakano and On behalf of the Working Group for Gynecologic Cancer	Cervical	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter thermoplastic
2018/12	Cancer Science Volume 110, Issue 1	Single fraction carbon ion radiotherapy for colorectal cancer liver metastasis: A dose escalation study	Hirokazu Makishima, Shigeo Yasuda, Yuka Isozaki, Goro Kasuya, Naomi Okada, Masaru Miyazaki, Osama Mohamad, Naruhiro Matsufuji, Shigeru Yamada, Hiroshi Tsuji, corresponding author Tadashi Kamada, and the Liver Cancer Working Group	Rectal	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter thermoplastic
2018/11	Cancer Science Volume 110, Issue 2	Clinical outcomes of carbon-ion radiotherapy for locally advanced non-small-cell lung cancer	Kazuhiko Hayashi, Naoyoshi Yamamoto, Mio Nakajima, Akihiko Nomoto, Hiroshi Tsuji, Kazuhiko Ogawa, Tadashi Kamada	Lung	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter Thermoplastic
2019/09	Cancer Medicine Volume 8, Issue 15	Hypofractionated carbon-ion radiotherapy for stage I peripheral nonsmall cell lung cancer (GUNMA0701): Prospective phase II study	Jun-ichi Saitoh, Katsuyuki Shirai, Tatsuji Mizukami, Takanori Abe, Takeshi Ebara, Tatsuya Ohno, Koichi Minato, Ryusei Saito, Masanobu Yamada, Takashi Nakano	Lung	Hypofractionated Carbon Ion Radiotherapy	Moldcare + Sanyo Polymer Industrial Shellfitter thermoplastic shell

Remarks: Descriptions on this list are based on the original papers.

2020/03	Clinical and Translational Radiation Oncology Volume 21	Influence of dose-averaged linear energy transfer on tumour control after carbon-ion radiation therapy for pancreatic cancer	Yasuhiro Hagiwara, Tapesh Bhattacharyya, Naruhiro Matsufuji, Yuka Isozaki, Hirotoshi Takiyama, Kenji Nemoto, Hiroshi Tsuji, Shigeru Yamada	Pancreatic	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter thermoplastic shells
2020/03	Advances in Radiation Oncology Volume 5, Issue 2	Long-Term Results of High-Dose 2-Fraction Carbon Ion Radiation Therapy for Hepatocellular Carcinoma	Shigeo Yasuda, Hirotoshi Kato, Hiroshi Imada, Yuka Isozaki, Goro Kasuya, Hirokazu Makishima, Hiroshi Tsuji, Daniel K. Ebner, Shigeru Yamada, Tadashi Kamada, MD, Hirohiko Tsuji, Naoya Kato, Masaru Miyazaki and the Working Group for Liver Tumor	Liver	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic sheet
2020/03	Radiotherapy and Oncology Volume 144	Dose assessment for patients with stage I non-small cell lung cancer receiving passive scattering carbon-ion radiotherapy using daily computed tomographic images: A prospective study	Yang Li, Yoshiki Kubota, Nobuteru Kubo, Tatsuji Mizukami, Makoto Sakai, Hidemasa Kawamura, Daisuke Irie, Naoko Okano, Kazuhisa Tsuda, Akihiko Matsumura, Jun-ichi Saitoh, Takashi Nakano, Tatsuya Ohno	Lung	Carbon Ion Radiotherapy	Moldcare + Sanyo Polymer Industrial Shellfitter body shell
2020/03	Cancers Volume 12 (3)	Kinetics of Prostate-Specific Antigen after Carbon Ion Radiotherapy for Prostate Cancer	Narisa Dewi Maulany Darwis, Takahiro Oike, Hidemasa Kawamura, Masahiro Kawahara, Nobuteru Kubo, Hiro Sato, Yuhei Miyasaka, Hiroyuki Katoh, Hitoshi Ishikawa, Hiroshi Matsui, Yoshiyuki Miyazawa, Kazuto Ito, Kazuhiro Suzuki, Soehartati Gondhowirdjo, Takashi Nakano, and Tatsuya Ohno	Prostate	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic shell
2020/12	Physica Medica Volume 80	Four-dimensional carbon-ion pencil beam treatment planning comparison between robust optimization and range-adapted internal target volume for respiratory-gated liver and lung treatment	Takayuki Kanai, Athena Paz, Wataru Furuichi, Ching-Sheng Liu, Pengbo He, Shinichiro Mori	Lung	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic shells
2021/01	Clinical and Translational Radiation Oncology Volume 26	Efficacy and feasibility of re-irradiation using carbon ions for pancreatic cancer that recurs after carbon-ion radiotherapy	Yasuhiro Hagiwara, Shigeru Yamada, Yuka Isozaki, Hirotoshi Takiyama, Makoto Shinoto, Shohei Kawashiro, Tapesh Bhattacharyya, Kenji Nemoto, Hiroshi Tsuji	Pancreatic	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter thermoplastic shells
2021/02	Japanese Journal of Radiology Volume 39	Carbon-ion radiotherapy for octogenarians with locally advanced non-small-cell lung cancer	Kazuhiro Hayashi, Naoyoshi Yamamoto, Mio Nakajima, Akihiro Nomoto, Hitoshi Ishikawa, Kazuhiko Ogawa, Hiroshi Tsuji	Lung	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter
2021/06	Cancers Volume 13 (13)	The Risk Factors for Radiation Pneumonitis after Single-Fraction Carbon-Ion Radiotherapy for Lung Cancer or Metastasis	Takashi Ono, Naoyoshi Yamamoto, Akihiro Nomoto, Mio Nakajima, Yuma Iwai, Yuka Isozaki, Goro Kasuya, Hitoshi Ishikawa, Kenji Nemoto and Hiroshi Tsuji	Lung	Carbon Ion Radiotherapy	Moldcare or Kuraray Shellfitter thermoplastic
2021/07	Journal of Radiation Research, Volume 62, Issue 4	Dosimetric impact of rotational setup errors in volumetric modulated arc therapy for postoperative cervical cancer	Katsutomo Tsujii, Yoshihiro Ueda, Masaru Isono, Masayoshi Miyazaki, Teruki Teshima, Masahiko Koizumi	Cervical	IMRT, VMAT	Moldcare
2021/09	Cancers Volume 13 (19)	Image-Guided Liver Stereotactic Body Radiotherapy Using VMAT and Real-Time Adaptive Tumor Gating: Evaluation of the Efficacy and Toxicity for Hepatocellular Carcinoma	Marie Cantaloube, Florence Castan, Morgane Creoff, Jessica Prunaretty, Karl Bordenau, Morgan Michalet, Eric Assenat, Boris Guili, Georges-Philippe Pageaux, Marc Ychou, Norbert Aillères, Pascal Fenoglioletto, David Azria and Olivier Riou	Liver	Image-Guided Stereotactic Body Radiotherapy, VMAT	Moldcare
2021/10	Annals of Surgical Oncology 2022, 29 (1)	Carbon Ion Radiotherapy for Locally Recurrent Rectal Cancer of Patients with Prior Pelvic Irradiation	Shigeru Yamada, Hirotoshi Takiyama, Yuka Isozaki, Makoto Shinoto, Daniel K. Ebner, Masashi Koto, Hiroshi Tsuji, Hideaki Miyauchi, Mitsugu Sekimoto, Hideki Ueno, Michio Itabashi, Masataka Ikeda, Hisahiro Matsubara and for the Working Group on Locally Recurrent Rectal Cancer	Rectal	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic shell
2021/11	Advances in Radiation Oncology Volume 6, Issue 6	Evaluation of Threshold Dose of Damaged Hepatic Tissue After Carbon-Ion Radiation Therapy Using Gd-EOB-DTPA-Enhanced Magnetic Resonance Imaging	Masashi Ebara MD, Kei Shibuya MD PhD, Hirofumi Shimada PhD, Motohiro Kawashima PhD, Hiromi Hirasawa MD PhD, Ayako Taketomi-Takahashi MD PhD, Tatsuya Ohno MD PhD, Yoshito Tsushima MD PhD	Hepatic	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter thermoplastic shells
2022/02	Zeitschrift für Medizinische Physik Volume 32, Issue 1	Investigating the use of virtual 4DCT from 4DMRT in gated carbon ion radiation therapy of abdominal tumors	Giorgia Meschini, Alessandro Vai, Chiara Paganelli, Silvia Molinelli, Davide Maestri, Giulia Fontana, Andrea Pella, Viviana Vitolo, Francesca Valvo, Mario Ciocca, Guido Baroni	Abdominal	Carbon Ion Radiotherapy	Moldcare + Klarify non-perforated body thermoplastic masks
2022/08	ScholarWorks Culminating Experience Projects. 207	Spinal Cord Dose Reduction Using A Jaw-Blocking VMAT Technique - A Retrospective Study of Chordoma and Chondrosarcoma Patients	Amber Wyatt	Spinal	VMAT	Moldcare + Qfix BOS frame
2022/11	Journals of Case Reports in Medicine, 2022, 11, 4	Applications of a CT-compatible 3D Printed Plastic Scrotal "Clamshell" for Radiotherapy Planning, Proton Beam Shielding, and Testicular Immobilization	Skyler E. Burke, Alireza Kassaei, John P. Plastaras, Andrea Gray, Christine E. Hill-Kayser, Xuanfeng Ding, Nathaniel Thorne, Boon-Keng Kevin Teo, and Michael J. LaRiviere	Testicular	Proton Beam Therapy	Moldcare + Civo Vac Lok
2023/01	Journal of Radiation Research Volume 64, No. 1	Comparison of dosimetries of carbon-ion pencil beam scanning, proton pencil beam scanning and volumetric modulated arc therapy for locally recurrent rectal cancer	Shinichiro Mori, Tapesh Bhattacharyya, Wataru Furuichi, Naoki Tohyama, Akihiro Nomoto, Makoto Shinoto, Hirotoshi Takiyama and Shigeru Yamada	Rectal	Carbon Ion Radiotherapy	Moldcare + Kuraray Shellfitter low-temperature thermoplastic shell
2023/5	Cancer Medicine Volume 12, Issue 13	Clinical impact of carbon-ion radiotherapy on hepatocellular carcinoma with Child-Pugh B cirrhosis	Yuichi Hiroshima, Masaru Wakatsuki, Takashi Kaneko, Hirokazu Makishima, Naomi Nagatake Okada, Shigeo Yasuda, Hitoshi Ishikawa, Hiroshi Tsuji	Hepatocellular	Carbon Ion Radiotherapy	Moldcare + Thermoplastic sheets (Shellfitter; Kuraray)
2023/05	ESTRO Poster	Ablative Radiotherapy (SABR) as primary treatment in inoperable and elderly women with breast	De Haro Piedra R, Velázquez Miranda S, Rodríguez García, Muñoz Carmona	Breast	SBRT	Moldcare + AnatGe Breast Stereotactic Prototype
2024/03	Cancers 2024, 16, 1284	Sacral Nerve-Sparing Planning Strategy in Pelvic Sarcomas/Chordomas Treated with Carbon-Ion Radiotherapy	Ankita Nachankar, Mansure Schafasand, Eugen Hug, Giovanna Martino, Joanna Góra, Antonio Carlino, Markus Stock and Piero Fossati	Pelvic	Carbon Ion Radiotherapy	Moldcare + Thermoplastic Mask
2025/05	ESTRO Poster	Full Monte Carlo Implementation in "Island Tumors": Exploring Dosimetric Impact and Significant Discrepancies	Santiago Velázquez Miranda, Carlos Manuel de Sequeira Ribeiro Nunes, Ana Ureba Sánchez, María González Vizuete, Antonio Leal Plaza	Breast	SBRT	Moldcare + AnatGe eXaCradle

<Case Report>

2024/03	Case Report (France)	HN-0.5 / Breast Report	Centre Saint-Jean Saint-Doulchard	Positioning Arms for Breast Treatment	SBRT	Moldcare (HN 0.5) + Macromedics BreastBoard LX
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<Media Spotlight>

2025/08	Linkedin	Chest wall, eaSyFix, Moldcare, thermoplastic and bolus eXaSkin		Chest	General	Moldcare + AnatGe EasyFix + AnatGe Mask
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