

Dr. Wong Ru Xin - Radiation Oncologist



Dr. Wong Ru Xin is a radiation oncologist, currently contributing to the field at Singapore Advanced Medicine Radiation Oncology (Proton SG).

- Visiting consultant Icon Cancer Centre Singapore, Mount Alvernia
- Visiting consultant at National Cancer Centre Singapore and KKH Women and Children's Hospital.

Prior Experience

Prior to her current role, Dr. Wong graduated on the dean's list from the National University of Singapore and won the book prizes for ENT and General Surgery. After graduation, she dedicated over a decade to the National Cancer Centre Singapore, where she honed her skills and knowledge. She obtained her MRCS (Member Royal College of Surgeon) in 2010 and FRCR (Fellow Royal College of Radiologist in clinical oncology) in 2016. In 2019, she received the Ministry of Health Manpower Development Grant to learn proton beam therapy in the USA.

Specialized Areas

Her practice encompasses a wide spectrum of specialized areas including breast, head and neck, pediatric, brain, skin cancer, and sarcoma treatment, leveraging advanced radiation therapy technology such as 3D, IGRT, VMAT, SBRT, and Proton Beam Therapy to deliver care to her patients.

Contributions to the Field

Dr. Wong's impact extends beyond clinical practice, as she has been involved in various clinical trials, studies, and educational initiatives. Her contributions to the oncology field include conducting research, sharing knowledge through teaching, and organizing educational events.

Thought Leadership

Furthermore, Dr. Wong's dedication to advancing cancer treatment is evident through her numerous publications on cancer prognostication, outcomes, and innovative techniques, solidifying her work as a thoughtful radiation oncologist in the industry.

Commitment to Patient Care

Her commitment to enhancing patient care is reflected in her successful implementation of novel clinical technologies and collaborations with colleagues, including implementing interstitial brachytherapy in pediatric sarcomas, starting electronic patient reported outcomes for quality of life, pulsed low-dose rate re-irradiation for recurrent bony sarcomas and initiating automated Organs-at-risk delineation.

Continued Service

Dr. Wong's continued service as a visiting consultant at National Cancer Centre Singapore and KK Hospital highlights her enduring commitment to serving the public.

Education and Training

National University of Singapore

Dr. Wong Ru Xin graduated from the National University of Singapore on the Dean's list.

Specialized Training in Proton Therapy

Dr. Wong underwent specialized training and observorships in proton therapy including St. Jude Children's Research Hospital, Provision Cares Proton Centre, and Kobe Proton Centre.

Expertise in Treatment of Various Cancers

During her training at the National Cancer Centre Singapore, Dr. Wong developed expertise in the treatment of various types of cancer, further enhancing her skills as a radiation oncologist.



Dr. Wong Ru Xin's Achievements

Research Grant

Dr. Wong secured research grants in 2021 and 2022 to initiate the development of electronic Patient Reported Outcomes (ePRO) for pediatric radiation oncology patients. This pioneering project aims to gather direct feedback from young patients, enhancing their care and treatment experience.

Charity Grant

In 2021 and 2022, Dr. Wong led a philanthropic effort to acquire silicon grip rings and open-face masks tailored for pediatric radiation oncology patients. This compassionate initiative aimed to increase patient comfort. She also studied the use of repeat MRI for pediatric brain malignancies for adaptive radiotherapy.

NOVELS Study Completion

In 2020, Dr. Wong accomplished the NOVELS study, focusing on hypo-fractionated image-guided neoadjuvant radiotherapy to at-risk margins for retroperitoneal sarcoma.

SPARK DUST Database and study

Study of Proton and Radiotherapy Advances with Knowledge, Dosimetry, and Unique Smart Targeting – an observational study and registry in Proton Therapy SG.

Setting up KAYA Database

Initiated in 2019, the Kids Adolescent Young Adult (KAYA) database under Dr. Wong's guidance enables comprehensive data collection and analysis in collaboration with the Singapore Childhood Cancer Registry. This project holds significant potential for improving cancer care outcomes for young patients.

Professional Associations

- **Singapore Radiological Society (SRS)**
- **Royal College of Radiologists UK (FRCR):** Being affiliated with FRCR demonstrates Dr. Wong's commitment to upholding the highest standards of clinical oncology, as recognized by this prestigious institution.
- **Royal College of Surgeons UK (MRCS):** Dr. Wong's association with MRCS reflects her wide-ranging expertise in surgical and oncological disciplines.
- **Southeast Asia Radiation Oncology Group (SEAROG)**
- **Paediatric Radiation Oncology Society (PROS)**
- **Particle Therapy Cooperative Group Asia Oceania (PTCOG-AO)**
- **Chordoma Foundation member**

Research

Breast Cancer

RX Wong, FY Wong, J Lim, WX Lian, YS Yap et al, The Breast Validation of the AJCC 8th prognostic system for breast cancer in an Asian healthcare setting

FY Wong, **RX Wong**, TH Wong et al, The Lancet Regional Health Effects of housing value and medical subsidy on treatment and outcomes of breast cancer patients in Singapore: A retrospective cohort study

QY Zhuang, **RX Wong** et al Ann Pall Med [Validation of Modified Breast Graded Prognostic Assessment for breast cancer patients with brain metastases: extra-cranial disease progression is an independent risk factor](#)

RX Wong, FY Wong et al. [Screening uptake differences are not implicated in poorer breast cancer outcomes among Singaporean Malay women](#)

Head and Neck

YS Koh, **RX Wong** et al [Outcomes of head and neck angiosarcoma with different treatment modalities: a 20-year single institutional experience](#)

WS Looi, RX Wong et al

[Long-term survival after reduced-dose radiotherapy in pediatric nasopharyngeal carcinoma](#)

Sarcomas

RX Wong, M Teo et al, Asian Journal of Surgery Applicability of the Sarculator and MSKCC nomograms to retroperitoneal sarcoma prognostication in an Asian tertiary centre

RX Wong, S Acharya et al, Int Journal Particle Therapy Cardiac-Sparing and Breast-Sparing Whole Lung Irradiation Using Intensity-Modulated Proton Therapy

RX Wong, Looi WS et al, Rad Oncology Journal **Pulsed low-dose rate radiotherapy for recurrent bone sarcomas: case reports and brief review**

Brain Cancer

KN Koh, **RX Wong** et al [Outcomes of intracranial germinoma—a retrospective multinational Asian study on effect of clinical presentation and differential treatment strategies](#)

RX Wong, D Tan et al [Local experience with radiosurgery for vestibular schwannomas and recommendations for management.](#)

Primary Intracranial Malignant Melanoma

[Pediatric Primary Intracranial Malignant Melanoma: Case Report and Literature Review](#)



Grants

1 Duke-NUS Singhealth Academic Grant Proton Beam Therapy

Dr. Wong secured a grant of \$50,000 for the Duke-NUS Singhealth Academic Grant Proton Beam Therapy. This grant will be utilized to further research and advance the application of proton beam therapy in clinical settings for retroperitoneal sarcoma.

2 Onco-ACP Pediatric Research Grant Proton Beam Therapy

Dr. Wong successfully obtained a substantial grant of \$100,000 for the Onco-ACP Pediatric Research Grant Proton Beam Therapy to utilise electronic patient reported outcomes, potentially leading to improved treatment strategies and outcomes for young cancer patients.

3 Duke-NUS Pediatric Cancer Charity Grant

Dr. Wong was granted \$40,000 for the Duke-NUS Pediatric Cancer Charity Grant, aiming to address the specific needs of pediatric cancer patients. She brought in open-faced masks, silicon grip rings and investigated adaptive radiotherapy by repeating MRI for brain cancers.

Webinars and Symposiums

2021: Medtronic-NCCS Sprint Webinar

Dr. Wong co-organized a highly informative webinar on retroperitoneal and limb sarcomas with Medtronic and NCCS. The session delved into the latest advancements in diagnosing and treating these challenging types of sarcomas, providing valuable insights for medical professionals and researchers.

2023: Singhealth Sarcoma and Skin Symposium

Dr. Wong spearheaded a satellite session for Radiation Oncology at the prestigious Singhealth sarcoma and skin symposium. The symposium featured cutting-edge discussions on the intersection of skin oncology and effective radiation therapy, providing a platform for the exchange of valuable insights and best practices among medical professionals.

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2022: Medtronic-Singapore Sarcoma Webinar

In collaboration with Medtronic, Dr. Wong organized a comprehensive webinar focusing on Ewing and gynecological sarcomas. The event showcased the latest research, treatment approaches, and technological innovations in addressing these complex sarcomas, offering indispensable knowledge for healthcare industry professionals.

2024: SAM Particle Therapy webinars with global experts

Dr. Wong will be co-organizing a series of webinars on particle therapy in collaboration with SAM and esteemed experts from around the world. These webinars will explore the latest advancements and breakthroughs in particle therapy.

International talks

PTCOG-Asia Oceania 2022: Intra-cranial germinoma

PTCOG-Asia Oceania 2024: Sarcomas

Teaching

Dr. Wong is dedicated to sharing her extensive knowledge and expertise in oncology nursing.

Dr. Wong has also had the privilege of teaching residents as an Assistant Professor at Duke-NUS.

Volunteer work

She provided pro bono tuition at family care centers and contributed to medical humanitarian missions in Cambodia.

Dr. Wong has played a role in free Public Health Screenings, helping to improve the well-being of the community.



Radiotherapy courses attended

- **Winter School in Particle Therapy:** Dr. Wong attended an intensive course covering the principles and clinical applications of particle therapy, learning about the latest advancements in the field, including proton and carbon ion therapy.
- **ESTRO Particle Therapy:** She participated in a comprehensive program organized by the European Society for Radiotherapy & Oncology, focused on the use of particle therapy in cancer treatment, including its benefits and practical implementation.
- **ESTRO Radiobiology and Physics:** Dr. Wong delved into the complex subjects of radiobiology and physics, gaining a deeper understanding of the biological and physical processes underlying radiotherapy.
- **LCPC Post Graduate Palliative Course:** She completed an advanced course in palliative care, enriching her knowledge in providing compassionate care to patients with life-limiting illnesses.
- **ESTRO Stereotactic Radiosurgery:** She engaged in a training program focusing on the precision and effectiveness of stereotactic radiosurgery in treating tumors with minimal damage to surrounding healthy tissue.
- **ESTRO Head and Neck Oncology**



Future Plans

Integration of AI

Dr. Wong aims to integrate Artificial Intelligence (AI) into radiotherapy planning to enhance the accuracy and efficiency of treatment.

Introduction of Advanced Treatment Modalities

Dr. Wong envisions introducing proton and advanced photon radiotherapy to Singapore and the broader region, promising enhanced outcomes and reduced side effects for patients.

Collaboration with Leading Organizations

Dr. Wong is leveraging the resources of the SAM network and collaborating with the FLASH therapy consortium to explore and implement new technologies.

Commitment to Innovation

This strategic partnership demonstrates Dr. Wong's commitment to staying at the forefront of the field and driving progress in cancer treatment.