



Prof. Dr. Chai Hong Yeong

Professor of Medical Physics

FIOMP | FIUPESM | FIPM | IUPAP Young Scientist Award 2021

School of Medicine, Faculty of Health and Medical Sciences | Taylor's University, 47500 Subang Jaya, Malaysia

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142+

Journal Articles & Proceedings

4

IAEA Books

5

Patents

**RM
3.36M**

Research Grants

54+

PG Graduates

121+

Invited Talks

BIOGRAPHY

Dr. Yeong is a Professor of Medical Physics at Taylor's University, Malaysia, and a leading figure in the field of medical physics worldwide. She is the current President of SEAFOMP and Chair of the IOMP Medical Physics World Board. She co-founded ACOMP and serves as an IAEA expert for multiple Task Groups. Her research focuses on theranostic nuclear medicine, interventional radiology, and 3D printing in medicine, with over RM3 million in research grants, 4 patents, 100+ peer-reviewed articles, and 3 academic books. She is Editor-in-Chief of the eMPW Bulletin and IOMP Newsletter, a Guest Lecturer at Kyushu University, Japan, and has supervised 54 postgraduate students (9 ongoing). Awards include the IUPAP Young Scientist Award (2021), Fellow of IUPESM and IOMP (2025), and Tatler Gen.T Leader of Tomorrow (2026).

ACADEMIC QUALIFICATIONS

2012	Doctor of Philosophy (PhD) — Distinction <i>Medical Physics · University of Malaya, Malaysia</i>
2007	Master of Medical Physics — Distinction in Research Project <i>Medical Physics (Accredited IPEM, UK) · University of Malaya, Malaysia</i>
2005	Bachelor of Science (Hons) — Second Class Upper <i>Health Physics · University of Technology Malaysia, Johor</i>

CAREER HISTORY

2022–Present	Professor — School of Medicine, Faculty of Health and Medical Sciences, Taylor's University
2018–2022	Associate Professor — Taylor's University
2023–Present	Adjunct Professor — KPJ University, Malaysia
2026–Current	Adjunct Professor — University of Santo Tomas, Manila, The Philippines
2023–Current	Invited Lecturer — Kyushu University, Japan <i>Medical Physics and Nuclear Medicine Physics</i>
2012–2017	Senior Lecturer — Department of Biomedical Imaging, Faculty of Medicine, University of Malaya

SELECTED AWARDS & HONOURS

International • 2026

Tatler Gen.T Leader of Tomorrow 2026

Tatler Asia — Advancing accessible precision oncology in Southeast Asia

International • 2025

Fellow of the International Organization for Medical Physics (FIOMP)

IOMP

International • 2025

Fellow of the IUPESM (FIUPESM)

IUPESM

National • 2025

Fellow of the Institute of Physics Malaysia (FIPM)

Institute of Physics Malaysia

International • 2023

James Dyson Award

James Dyson Foundation

International • 2021

IUPAP Young Scientist Award in Medical Physics — First Malaysian & Southeast Asian recipient

IUPAP & IOMP

University • 2019

President's Award for Research and Innovation

Taylor's University

International • 2018

SEAFOMP Young Leaders Award

SEAFOMP

International • 2012

Certificate of Merit — ECR 2012 (Top 40 of 4,865 posters) — First Malaysian recipient

European Society of Radiology, Vienna

PROFESSIONAL MEMBERSHIPS & LEADERSHIP

2022–2026	President — SEAFOMP
2022–2028	Chair — IOMP Medical Physics World Board
2018–2021	Chair — AFOMP Professional Relations Committee
2014–	Co-founder & Founding Committee — ASEAN College of Medical Physics (ACOMP)
Current	Editor-in-Chief — eMPW Bulletin & IOMP Newsletter

2025–	Editorial Board Member — Medical Dosimetry
2021–2024	Steering Committee — National Diagnostic Reference Levels Task Group, Ministry of Health Malaysia
2019–2027	Task Group Expert — Radiation Protection Officer (Medicine), Ministry of Health Malaysia

RESEARCH SUMMARY

Research Areas	Theranostic Nuclear Medicine · Interventional Radiology · 3D Printing in Medicine
Total Research Grants	RM 3,364,652 (PI: RM 2,326,912 · Co-Researcher: RM 1,037,740)
Journal Publications	118 listed · 145+ total peer-reviewed articles in ISI-indexed journals
Books	3 academic books + 2 book chapters (incl. 2 IAEA Human Health Series)
Patents	5 patents (2 international, 3 national)
PG Students Supervised	54 graduated · 9 ongoing
Invited Presentations	121+ international and national presentations

SELECTED PUBLICATIONS

Books

2025	Quality Assurance and Optimization for Fluoroscopically Guided Interventional Procedures <i>IAEA Human Health Series No. 48, Vienna · Drafting Committee Member</i>
2023	Worldwide Implementation of Digital Mammography Imaging <i>IAEA Human Health Series No. 46, Vienna · Drafting Committee Member</i>
2019	Problems and Solutions in Medical Physics: Nuclear Medicine Physics <i>Kwan Hoong Ng, Chai Hong Yeong, Alan Perkins · Taylor and Francis, UK</i>
2012	Sm-153 in Gastrointestinal Imaging <i>Chai Hong Yeong, Alan Christopher Perkins · LAMBERT Academic Publishing, Germany</i>

Selected Journal Articles

1.	Nagapan G, Yeong CH, Zakaria R, Meera Mohaideen AK, Sankara Narayanan S, Jun Hao L, Selvaduray KR, Abdul Gafor AH, Ban Hock K, Karupaiah T. A Roadmap to Investigate Human Postprandial Gastric Emptying and Metabolic Responses to Solid Meal Feeding with Varying Glycemic Load: Integrating MRI Evaluation into a Crossover Design Study. <i>F1000Research</i> . 2026;15:1441. doi:10.12688/f1000research.187396.1 2026
2.	Yeong CH, Wong YH, Lim SY, et al. Protocol for a randomised, double-blind, placebo-controlled clinical trial on the effects of high-dose vitamin B multivitamin supplementation with and without Passiflora incarnata on neural connectivity and oxidative metabolism in healthy adults. <i>BMJ Open</i> . 2026;16:e116925. doi:10.1136/bmjopen-2026-116925 (First Author) 2026
3.	Tatu SS, Sato T, Furuta T, Wong YH, Kasbollah A, Suppiah S, Yeong CH. Integration of a dose-voxel kernel (DVK) convolution method for voxel-based dosimetry in particle and heavy ion transport code system (PHITS). <i>Physics in Medicine & Biology</i> . doi:10.1088/1361-6560/ae8efa (Corresponding Author) (Q1) 2026
4.	Galvan JAA, Loo GH, Kosai NR, Yeong CH et al. Long-Term Clinical Outcomes and Cost-Effectiveness of Bariatric Surgery for Type 2 Diabetes in Malaysia: A 10-Year Retrospective Cohort Study. <i>J Multidiscip Healthc</i> 2026
5.	Anam C et al., Yeong CH, Dougherty G. Development of smooth d'-based contrast-detail curve for CT imaging protocol optimization. <i>Medical Physics</i> , 53(1), e70239 2026 [ISI]
6.	Anam C et al., Yeong CH, Dougherty G. Automated computation of detectability index and contrast-detail curves for CT optimization. <i>Physics in Medicine & Biology</i> , 70(19) 2025 [ISI]

7.	Tan HY, Wong YH, Kasbollah A et al., Yeong CH. Biodistribution and toxicity of neutron-activated Sm-153 oxide-loaded microspheres. <i>Nuclear Medicine and Biology</i> , 109026 2025 [Corresponding]
8.	Yeong CH, Wong JHD. Revolutionising patient care through medical physics. <i>Health and Technology</i> 2025 [First Author]
9.	Wong YH, Kasbollah A, Abdullah BJ, Yeong CH. Samarium Carbonate-Polymethacrylate Microspheres as Neutron-Activatable Radioembolic Agent. <i>Pharmaceutics</i> , 15(3):877 2023 [ISI] [Corresponding]
10.	Yeong CH. Current and future development of theragnostic nuclear medicine. <i>Medical Physics International</i> , 10:363–370 2022 [First Author]
11.	Loh PS, Yeong CH et al. Deep vs moderate neuromuscular blockade in microwave ablation of liver tumours: RCT. <i>Scientific Reports</i> , 11(1) 2021 [ISI] [Corresponding]
12.	Tan D, Lim KS, Wong YH et al., Yeong CH. Multivariate Regression: Hounsfield Unit Shift, Tissue Temperature, Tissue Contraction. <i>IEEE Trans Instrumentation and Measurement</i> , 70:1–9 2021 [ISI]
13.	Wong YH, Tan HY, Kasbollah A, Abdullah BJJ, Acharya RU, Yeong CH. Neutron-Activated Theranostic Sm-153-Labeled Microspheres for Transarterial Radioembolization. <i>Pharmaceutics</i> , 11(11):596 2019 [ISI] [Corresponding]
14.	Sun Z, Lau I, Wong YH, Yeong CH. Personalized Three-Dimensional Printed Models in Congenital Heart Disease. <i>Journal of Clinical Medicine</i> , 8(4):522 2019 [ISI] [Corresponding]
15.	Hashikin N, Yeong CH et al. Validity of partition model dosimetry for 90Y radioembolization — Monte Carlo simulation. <i>Physics in Medicine and Biology</i> , 62(18):7342 2017 [ISI] [Corresponding]
16.	Abdullah BJJ, Yeong CH et al. Robotic assisted thermal ablation of liver tumours. <i>European Radiology</i> , 25(1):246–257 2015 [ISI] [Corresponding]
17.	Yeong CH, Cheng MH, Ng KH. Therapeutic radionuclides in nuclear medicine: current and future prospects. <i>J Zhejiang University Science B</i> , 15(10):845–863 2014 [First Author]

SELECTED CONFERENCE PROCEEDINGS (25 total)

1.	Bugby S., Farnworth A., Perkins A. et al.. Seracam TM: Hybrid Gamma-Optical Video Imaging for Intraoperative Radioguidance 2025 <i>IEEE Nuclear Science Symposium (NSS), Medical Imaging Conference (MIC) and Room Temperature Semiconductor Detector Conference (RTSD)</i> 2025
2.	Fong C.K., Choo H.L., Yeong C.H. et al.. Simulation of UVC disinfection system in healthcare settings <i>AIP Conference Proceedings</i> , vol. 2729, 050001 2024
3.	Tatu S.S., Kelley B.M., Yeong C. et al.. Samarium-153 Dose-Voxel Kernels and S-Factors for Novel 153 Sm-Radioembolization Theranostic Liver Treatments <i>AAPM 66th Annual Meeting & Exhibition</i> 2024
4.	Musidek I.M., Ng A., Shah M.M. et al.. SFoV Imaging Using a Hybrid Optical-Gamma Camera (HGC): Specifications and First Clinical Result <i>EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING</i> , vol. 51, S716–S716 2024
5.	Wee L.H., Galvan J.A.A., Patil S.S. et al.. Understanding factors associated with motivation to quit vaping among vapers in the federal territory of Kuala Lumpur, Malaysia <i>Healthcare</i> , vol. 11, 1980 2023
6.	Ropathy N.R.A.R., Choo H.L., Yeong C.H. et al.. UVC light simulation for room disinfection system <i>MATEC Web of Conferences</i> , vol. 335, 03012 2021
7.	Tang M.Z., Choo H.L., Yeong C.H. et al.. Development of 3D-printed heterogeneous tumour phantom for quantitative analysis in PET/CT imaging <i>MATEC Web of Conferences</i> , vol. 335, 03014 2021
8.	Koh Y., Choo H., Wong Y. et al.. Chemically modified polystyrene co-loaded with antimicrobial agents <i>Journal of Physics: Conference Series</i> , vol. 2120, 012012 2021
9.	Yeong C.H., Wong Y., Tan H.Y. et al.. Production of theranostic 153Samarium-labelled polystyrene microparticles for hepatic radioembolization <i>Trends in Radiopharmaceuticals (ISTR-2019). Proceedings of an International Symposium. Programme and Abstracts</i> , 62–62 2020

10.	Haris A., Susilo A., Peralta A. et al.. Scientific Committee, Organising Committee and Reviewers <i>Journal of Physics: Conference Series</i> , vol. 1505, 011001 2020
11.	Fahmi M., Hashikin N., Yeong C. et al.. Evaluation of organ doses following prostate treatment with permanent brachytherapy seeds: a Geant4 Monte Carlo simulation study <i>Journal of physics: conference series</i> , vol. 1248, 012049 2019
12.	How Wong Y., Yee Tan H., Kasbollah A. et al.. Biodegradable Samarium-153-labelled microspheres for hepatic radioembolization: preparation, characterization and radiolabelling evaluation after neutron activation <i>Journal of Physics: Conference Series</i> , vol. 1248, 012066 2019
13.	Leng Lee D., How Wong Y., Long Cheah P. et al.. Correlation between CT Number shift and tissue temperature change during radiofrequency ablation: an ex-vivo study using bovine liver <i>Journal of Physics: Conference Series</i> , vol. 1248, 012039 2019
14.	Aidil M., Hashikin N., Yeong C. et al.. Evaluation of organ doses following high dose rate (HDR) brachytherapy of breast cancer: a Geant4 Monte Carlo simulation study <i>Journal of Physics: Conference Series</i> , vol. 1248, 012048 2019
15.	Mah S., Vijayanathan A., Muridan R. et al.. ENDOMETRIAL SHEAR WAVE ELASTOGRAPHY: A SIMPLE TOOL FOR IMPROVING DIAGNOSTIC ACCURACY OF ENDOMETRIAL CARCINOMA FROM OTHER BENIGN ENDOMETRIAL DISEASES <i>INTERNATIONAL JOURNAL OF GYNECOLOGICAL CANCER</i> , vol. 28, 613–615 2018
16.	Abdullah B., Yeong C., Givechi S.. Tumour targeting for imaged-guided percutaneous thermal ablation: simulation modelling 2015
17.	Ting C., Yeong C., Ng K. et al.. Accuracy of tissue elasticity measurement using shear wave ultrasound elastography: A comparative phantom study <i>World Congress on Medical Physics and Biomedical Engineering, June 7-12, 2015, Toronto, Canada</i> , 252–255 2015
18.	Taharim N., Yeong C., Ng K. et al.. Evaluation of Occupational Dose Reduction in Interventional Radiology Using Lead-Free Protection Drape 2015
19.	Abdullah B., Yeong C., Dumpuri P. et al.. Co-registration of inspiratory and expiratory datasets for treatment planning for robotic-assisted liver thermal ablation 2015
20.	Yeong C., Abdullah B., Ng K. et al.. Accuracy of Tissue Elasticity Measurement Using Shear Wave Ultrasound Elastography: Comparison With Gold Standard 2015
21.	Ting H., Yeong C., Abdullah B. et al.. Investigation Of Tissue Elasticity Measurements Using Shear Wave Ultrasound Elastography 2014
22.	Choong K., Abdullah B., Kumar G. et al.. Shear wave elastography in characterization of liver tumours 2014
23.	Abdullah B., Yeong C., KULKARNI A. et al.. Robotic-Assisted CT-Guided Radiofrequency Ablation-Technical Performance 2014
24.	Abdullah B., Yeong C., Ng K.. Accuracy Of Tumour Targeting Using A CT-Compatible Robotic System-A Phantom Study 2014
25.	Yeong C., Abdullah B., Ng K. et al.. A Novel Approach of Gastrointestinal Transit Investigation Using SPECT and MR Image Fusion 2012

VISITING APPOINTMENTS

2026–Current	Adjunct Professor — University of Santo Tomas, Manila, The Philippines
2023–Current	Invited Lecturer — Kyushu University, Japan <i>Medical Physics and Nuclear Medicine Physics</i>
2019–2022	Visiting Associate Supervisor — Curtin University, Australia <i>School of Molecular and Life Sciences</i>
2023–Current	Adjunct Professor — KPJ University, Malaysia
2024–2029	Visiting Lecturer — UiTM, Malaysia

