

Curriculum Vitae

PERSONAL DATA

Full Name: Shara LEE

E-mail Address: shara.lee@polyu.edu.hk

EDUCATION

BSc (Hons) (Radiation Therapy) 1st Class Honours, The Hong Kong Polytechnic University

PhD, The Chinese University of Hong Kong

MSc (Cardiology), The Chinese University of Hong Kong

PROFESSIONAL EXPERIENCES

July 2019- Present:

Associate Professor, Department of Health Technology & Informatics, Faculty of Health & Social Sciences, The Hong Kong Polytechnic University

July 2013- June 2019:

Assistant Professor, Department of Health Technology & Informatics, Faculty of Health & Social Sciences, The Hong Kong Polytechnic University

July 2013- Jun 2018:

Adjunct Assistant Professor, Department of Anaesthesia and Intensive Care, Faculty of Medicine, The Chinese University of Hong Kong

Sept-2014-Present:

Honorary Radiation Therapist, Department of Clinical Oncology, Prince of Wales Hospital

May-2014-Apr 2017:

Honorary Radiation Therapist, Department of Clinical Oncology, Tuen Mun Hospital

June 2008- May 2013:

Post-doctoral Fellow, Department of Chemical Pathology, Faculty of Medicine, The Chinese University of Hong Kong

PROFESSIONAL RECOGNITION

- Registered Radiation Therapist, The Supplementary Medical Professions Council of HK (Reg. No.: 200150)
- Member, The Hong Kong Society of Children's Palliative Care (HKSCPC)
- Ordinary member, The Society of Anaesthetists of HK (SAHK)

TEACHING GRANTS & AWARDS

Finalist, 2018 UGC teaching award (Early Career Faculty) nominated by The HK Polytechnic University

Faculty Teaching Prize (Individual), Faculty of Health & Social Sciences (2017-18)

Faculty Teaching Award (Team Award as Leader), Faculty of Health & Social Sciences (2017-18)

Nominee for the 2016 UGC teaching award (Early Career Faculty) by Faculty of Health & Social Sciences, the HK Polytechnic University

Departmental Teaching Award (Individual Prize), Department of Health Technology & Informatics (2016-17)

Departmental Teaching Award (Team Award as Leader), Department of Health Technology & Informatics (2016-17)

Departmental Teaching Award (Individual), Department of Health Technology & Informatics (2014-15)

RESEARCH GRANTS

Competitive Grants

- 1) Principal investigator: "Prevention of vasovagal reactions in blood donors: A randomized double-blinded controlled comparison of efficacy and haemodynamic effects of oral prehydration fluids." Ref No. 12130371, Health and Medical Research Fund (HMRF), 06/2015, HK\$999,042.
- 2) Co-investigator: "Randomized evaluative Study of Phenylephrine or Norepinephrine for maintenance of blood pressure during spinal anaesthesia for caesarean delivery: The RESPOND2 study." General Research Fund, Research Grants Council (GRF, RGC), 2016-17, HK\$1,673,726.

Submitted GRF Grant with Rating of 3.5:

- Principal investigator: Management of radiation-induced dermatitis using low-level laser therapy in nasopharyngeal cancer patients receiving chemoradiotherapy: A randomized, double-blinded controlled trial (MARVEL), 2017-18
- Principal investigator: Management of radiation-induced dermatitis using low-level laser therapy in nasopharyngeal cancer patients receiving chemoradiotherapy: A randomized, double-blinded controlled trial (MARVEL), 2018-19

RESEARCH INTERESTS

Radiation Therapy and Medical imaging:

- Vascular imaging & flow assessment using ultrasound
- Clinical & Patient care Skills: Symptomatic relief during radiotherapy
- Management of Radiotherapy side-effects using Photobiomodulation / Low-level laser therapy
- Emergency Care Training and Medical Simulation

Non-invasive haemodynamic monitoring in medicine and sports:

- Cardiovascular responses during blood donation
- Exercise responses

SERVICES TO PROFESSIONAL & SCIENTIFIC BODIES

- Peer Reviewer for British Journal of Anaesthesia (IF 6.238)
- Peer Reviewer for Acta Anaesthesiologica Scandinavica (IF 2.438)
- Committee Member, Hong Kong Society of Simulation in Healthcare (HKSSiH)
- Radiation Therapy (PolyU)-Children's Cancer Foundation (PolyU RT-CCF) Voluntary Team: Team Founder & Leader
- Clinical Trainer for Acute medicine and Intensive care medicine course, The Chinese University of Hong Kong

INVITED PRESENTATIONS/ LECTURES

International Conferences

- Invited guest speaker for the '2018 Sichuan Provincial ICU Annual Scientific Meeting'. Chengdu, Sichuan (20-22 July, 2018) – Lecture: 'Septic Shock: Haemodynamic Assessment Demystified'
- Invited guest speaker for the '2017 年中華醫學會放射治療技術學術會議', 湖南長沙市 (25-27 August, 2017) - Lecture: '放射治療師透過發展臨床技術優化病人護理'
- Invited guest speaker for the 5th International Symposium of Neonatal Respiratory and Intensive Care Medicine, Guangzhou, China (9-10 October, 2015) - 'Non-invasive Haemodynamic Monitoring' and 'Haemodynamic assessment of Septic Shock'

Local Conferences

- Invited guest speaker and Expert Panel Moderator: 2017 Annual Scientific Meeting of the Hong Kong Society for Simulation in Healthcare (HKSSiH), Hong Kong, China (9-10 September 2017)
 - Expert Panel Moderator: Use of Simulation in Assessment in Health care
 - Lecture: Simulation for Radiography Education & Assessment

- Invited guest lecturer for the Doppler cardiac output monitoring (DoCOM) courses organized by the Accident and Emergency Academic Unit, Prince of Wales Hospital
 - Apr 2012, Aug-2012, Dec-2012 and Apr-2013
 - Lecture topic: 'Introduction to Haemodynamics' and 'Basic Principles of Doppler Cardiac Output Monitoring'

RESEARCH OUTPUTS

Research Accounts:

ORCID ID: 0000-0001-5257-2076

Scopus Author ID: 34971469100

ResearcherID: G-1874-2014

Selected Refereed Publications:

1. Lee DCW, Law HKW, Ajmol A, Sheridan S, Wong SHS, **Lee SWY**. Compression Garments-induced Leg Changes Increase Hemodynamic Responses in Healthy Individuals. *International Journal of Sports Medicine* 2019 (Article in press). *IF: 2.132*
2. Ngan Kee WD, **Lee SWY**, Ng FF, Khaw KS. Prophylactic Norepinephrine infusion for preventing Hypotension during spinal anesthesia for Cesarean delivery. *Obs Anesth Digest* 2019; 39: 29. *IF: 3.68*
3. Ngan Kee WD, Ng FF, **Lee SWY**, Lee A. Norepinephrine versus phenylephrine during spinal anaesthesia for caesarean delivery: a randomized double-blinded pragmatic non-inferiority study comparing neonatal outcome. *Int J Obstet Anaesth* 2019; 39: S7. *IF: 3.404*
4. Wu VWC, Ho YY, Tang YS, Lam PW, Yeung HK, **Lee SWY**. Comparison of the verification performance and radiation dose between ExacTrac x-ray system and On-Board Imager— A phantom study. *Medical Dosimetry* 2019; 44: 15-19. *IF: 0.886*
5. Lee DCW, **Lee SWY**, Khaw KS, Ajmol AJ, Sheridan SE, Wong SHS. Haemodynamic responses of wearing low-pressure sports compression tights during an orthostatic challenge in healthy individuals. *Journal of Science & Medicine in Sport* 2018; 21: 1062-67. *IF: 3.929*
6. Ngan Kee WD, **Lee SWY**, Ng FF, Khaw KS. Evaluation of prophylactic norepinephrine infusion for preventing hypotension during spinal anesthesia for Cesarean delivery. *Anesthesia & Analgesia* 2018; 126: 1989-94. *IF: 3.463*
7. Ngan Kee WD, Tam YH, Khaw KS, Ng FF, **Lee SWY**. Closed-loop feedback computer-controlled phenylephrine for maintenance of blood pressure during spinal anesthesia for Cesarean delivery: A randomized trial comparing automated boluses versus infusion. *Anesthesia & Analgesia* 2017; 125: 117-23 [PMID: 28368936]. *IF: 3.463*
8. Ngan Kee WD, Tam YH, Khaw KS, Ng FF, **Lee SWY**. Performance of a closed-loop feedback computer-controlled infusion system for maintaining blood pressure during spinal anaesthesia for caesarean section: a randomized controlled comparison of norepinephrine versus phenylephrine. *Journal of Clinical Monitoring and Computing* 2017; 31: 617 [PMID: 27139726]. *IF: 2.450*
9. Zhang YT, Lin CG, Wu JH, Jiang XB, **Lee SWY**, Tam SY, Wu VWC. A longitudinal evaluation of early anatomical changes of parotid gland in intensity modulated radiotherapy of nasopharyngeal carcinoma patient with parapharyngeal space involvement. *J Med Radiat Sc* 2017; 64: 188-94.

10. Zhang J, Critchley LAH, Lee CW, Khaw KS, **Lee SWY**. The Effect of Head Up Tilting on bioreactance cardiac output and stroke volume readings using suprasternal subcutaneous Doppler as a control in healthy young adults. *Journal of Clinical Monitoring and Computing* 2016; 30: 519-26. *IF: 2.450*
11. Lee DCW, Khaw KS, **Lee SWY**, Ali A, O'Reilly J, Wong SHS. Wearing Compression Garment Enhances Cardiac Efficiency from Supine to Head Up Tilt. *Med Sci Sports Exerc* 2016; 48: 1039. *IF: 4.459*
12. Jones AYM, Ngai SPC, Ying MTC, Morris NR, Laakso EL, Lee SWY, Parry SM. Sonographic evaluation of diaphragmatic function during breathing control. *Physiotherapy Theory and Practice* 2017; 33: 560-7. *IF: 1.129*
13. Lu YY, **Lee SWY**, Khaw KS, Du R. A 360-degree Holographic Display System for Radiotherapy Treatment Planning. *Computer-Aided Design and Applications* 2015; 13: 289-294.
14. Khaw KS, **Lee SWY**, Ngan Kee WD, Law LW, Lau TK, Ng FF, Leung TY. Randomized trial of anaesthetic interventions in external cephalic version for breech presentation. *Br J Anaesth* 2015; 114: 944-50. *IF: 6.499*
15. Ngan Kee WD, **Lee SWY**, Khaw KS, Ng FF. Randomized Double-blinded Comparison of Norepinephrine and Phenylephrine for Maintenance of Blood Pressure during Spinal Anesthesia for Cesarean Delivery. *Anesth* 2015; 122: 736-45. *IF: 6.523*
16. Ngan Kee WD, **Lee SWY**, Khaw KS, Ng FF. Haemodynamic effects of glycopyrrolate pretreatment before phenylephrine infusion during spinal anaesthesia for Caesarean section. *Int J Obstet Anesth* 2013; 22: 179-87. *IF: 3.404*
17. **Lee SWY**, Khaw KS, Ngan Kee WD, Leung TY, Critchley LAH. Haemodynamic effects from aortocaval compression at different angles of lateral tilt in non-labouring term pregnant women. *Br J Anaesth* 2012; 109: 950-6. (This paper is accompanied by an editorial). *IF: 6.499*
18. Yu SCY, **Lee SWY**, Jiang P, Leung TY, Chan KCA, Chiu RWK, Lo YMD. High resolution profiling of fetal DNA clearance from maternal plasma by massively parallel sequencing. *Clin Chem* 2013; 59: 1228-1237. *IF: 7.457*
<http://www.clinchem.org/content/59/8/1228.long>
19. Chim SC, Lee WS, Ting YH, Chan OK, **Lee SWY**, Leung TY. Systemic identification of spontaneous preterm birth-associated RNA transcripts in maternal plasma. *PLoS ONE* 2012; 7: e34328. *IF: 3.234*
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0034328>
20. **Lee SWY**, Khaw KS, Ngan Kee WD, Leung TY. Monitoring a wider range of haemodynamic variables will be useful for management of hypotension in obstetric spinal anaesthesia. Letter *Br J Anaesth* 2009; 103: 457-8. *IF: 6.238*
21. Khaw KS, Ngan Kee WD, Tam YH, Wong MK, **Lee SWY**. Survey and evaluation of modified oxygen delivery devices used for suspected severe acute respiratory syndrome and other high-risk patients in Hong Kong. *HK Med J* 2008; 14 (Suppl 5): 27-31.
22. Khaw KS, Ngan Kee WD, **Lee SWY**. Hypotension during spinal anaesthesia for Caesarean section: Implications, detection prevention and treatment. *Fetal & Maternal Med Rev* 2006; 17: 157-83.
23. White P, **Lee SWY**, Wong CWY, Lee AKW, Cheung DN. Role development for therapeutic radiographers in the public hospitals in Hong Kong. *J Radiotherapy Practice* 2004; 4: 66-77.

Selected Publications: Conference papers

1. **Lee SWY**, Tam VCW, Chan CL, Kwong LW, Wu VWC, Wong KW, Ramkumar S, Khaw KS. Management of radiation-induced dermatitis using low-level laser therapy (LLLT) in nasopharyngeal cancer (NPC) patients receiving chemo-radiotherapy: A randomized-controlled trial: A Pilot report. ESTRO meets Asia (European Society for Radiotherapy & Oncology) 2018, Singapore 7-9 Dec 2018.
2. Ng CF, Lo TK, Ngan YT, Tse MN, Chan LL, **Lee SWY**. Management of radiation-induced skin reactions: A survey of current practice in public hospitals of Hong Kong. 21st Asia-Australasia Conference of Radiological Technologists (AACRT) 2017, Hong Kong 23-25 Jun 2017.
3. Chung KW, Chan HY, Chung TH, Lam LK, **Lee SWY**. Role development of radiation therapists to provide advanced patient care among public hospitals in Hong Kong. 21st Asia-Australasia Conference of Radiological Technologists (AACRT) 2017, Hong Kong 23-25 Jun 2017.
4. Lee DCW, Ali A, Law HKW, Khaw KS, **Lee SWY**, Wong SHS. Lower body compression on leg blood-vessel morphological response via MRI in healthy individuals. 2nd International conference in Sports Science & Technology (ICSST), Singapore Dec 2016.
5. Lee DCW, Khaw KS, **Lee SWY**, Ali A, Wong SHS. Wearing compression garment enhances cardiac efficiency from supine to head up tilt. American College of Sports Medicine (ACSM) Annual Meeting, Boston 2016.
6. **Lee SWY**, Choi YH, Kwong YP, Keung HK, Kwong CY, Or LM, Wu VWC. Dosimetric Impact of Flattening Filter and Flattening Filter-Free Beams on Intensity Modulated Radiation Therapy Planning of Non-Small Cell Lung Carcinomas. European Society for Radiotherapy & Oncology 2016, Turin 29 Apr-3 May 2016.
7. Ngan Kee WD, YH Tam, Khaw KS, Ng FF, **Lee SWY**. Closed-loop feedback computer-controlled phenylephrine for maintenance of blood pressure during spinal anaesthesia for caesarean section: randomized comparison of automated boluses versus infusion. *Int J Obstet Anesth* 2016; 25: S11. (*This paper was presented at the Obstetric Anaesthetists Association meeting in May 2016*). IF: 1.832 (Ranked 16th among *Anaesthesia Journals*)
8. Lo WY, Chan TH, Tse TS, Kong CH, Luk KK, **Lee SWY**. Cardiovascular changes in response to exercises among healthy active and sedentary individuals. Hong Kong Radiographer and Radiation Therapist Conference (HKRRTC) 2015, Hong Kong 26-28 Jun 2015.
9. Lam WH, Lam YN, Lam SM, Chan KK, Tsui WK, **Lee SWY**. Dosimetric comparison of the organs-at-risk contouring using 4DCT and conventional CT in stereotactic body radiotherapy of Hepatocellular Carcinoma. Hong Kong Radiographer and Radiation Therapist Conference (HKRRTC) 2015, Hong Kong 26-28 Jun 2015.
10. Or KM, Kwong YP, Chow YH, Kwong CY, Keung HK, **Lee SWY**. Dosimetric impact of flattening-filter-free beams on IMRT planning of non-small-cell lung carcinoma. Hong Kong Radiographer and Radiation Therapist Conference (HKRRTC) 2015, Hong Kong 26-28 Jun 2015.
11. Lu YY, **Lee SWY**, Khaw KS, Du R. A Holographic Displaying System for Gastroscopy Diagnosis. MATEC Web of Conferences 2015; 32: 04003.
12. Lu YY, **Lee SWY**, Khaw KS, Du R. A 360-degree Holographic Display System for Radiotherapy Treatment Planning. *Proceedings of Computer-Aided Design* 2015; 455-58. IF: 1.801

13. Ngan Kee WD, **Lee SWY**, Khaw KS, Ng FF. Randomized evaluative study of phenylephrine or norepinephrine (The RESPOND study) for maintenance of blood pressure during spinal anaesthesia for Caesarean delivery. *Int J Obstet Anesth* 2014; 23(S1): S10. (This paper was awarded the prize for the best paper at the Obstetric Anaesthetists Association meeting in May 2014). IF: 2.085 (Ranked 20th/31 among Anaesthesia Journals)
14. **Lee SWY**, Khaw KS, Ngan Kee WD, Leung TY, Ho SSY, Ying MTC, Critchley LAH. A new bedside technique for detecting inferior vena cava compression in term parturients. *Anaesth Int Care* 2007; 35: 638. IF: 1.47
15. **Lee SWY**, Khaw KS, Ngan Kee WD, Leung TY, Ho SY, Ying TC, Critchley LAH. A new bedside technique for detecting inferior vena cava compression in term parturients. *Annual Scientific Meeting of the Australian and New Zealand College of Anaesthetists (ANZCA) 2007*, Melbourne Exhibition and Convention Centre 26th-29th May 2007.
16. **Lee SWY**, Khaw KS, Ngan Kee WD, Leung TY, Ho SY, Ying TC, Critchley LAH. Application of venous phasicity test for detecting inferior vena cava compression in term parturients. *The 3rd International Scientific Meeting of the International Society of Ultrasound in Obstetrics and Gynaecology (ISUOG) 2007*, Hong Kong Convention and Exhibition Centre 25th-28th February 2007.
17. **Lee SWY**, Khaw KS, Ngan Kee WD, Ying TC, Ho SY. A new method for detecting inferior vena cava compression in term parturients. *The Combined Scientific Meeting in Anaesthesiology 2006*, Hong Kong Convention and Exhibition Centre 18th-19th November 2006.
18. **Lee SWY**, Khaw KS, Ngan Kee WD, Ng B, Ng F, Critchley LAH. Haemodynamic monitoring during elective Caesarean section: the good, the bad and the ugly. *The Combined Scientific Meeting in Anaesthesiology 2005*, Hong Kong Convention and Exhibition Centre 27th-28th August 2005.
19. Khaw KS, **Lee SWY**, Ngan Kee WD, Ng F. Can Finometer provide rapid detection of hypotension during spinal anaesthesia for elective Caesarean section? *The Australian Society of Anaesthetists - 64th National Scientific Congress 2005*, Gold Coast Convention and Exhibition Centre 24th - 27th September 2005.

INTERNAL SERVICES

Department

- Senate member, The Hong Kong Polytechnic University (Jan 2017 - Present)
- Elected Member of the Departmental Management Committee (DMC) (September 2017-Present)
- Deputy Programme Leader for the degree of BSc (Hons) Radiography (August 2015 - Present)
- Undergraduate Departmental enrolment officer (DELO) for the degree of BSc (Hons) Radiography (2014-2016)
- Setting up of the 'Clinical Skills Laboratory' (Y511) and training of undergraduate Radiography (both medical imaging and radiation therapy streams) students
- Development of the new subject HTI27105 Clinical Skills in Radiography Practice for the BSc (Hons) Radiography programme

EXTERNAL SERVICES

- Chief Station Examiner for Part II Third Professional Examination (OSCE, Objective-structured Clinical Examination) for the degree of Bachelor of Medicine and Surgery (MBChB) of the Chinese University of Hong Kong (May 2013 – Present/ > 6 years)
- Invited examiner for PhD in Anaesthesia & Intensive Care of the Chinese University of Hong Kong (2015-16)
 - 'Critical haemodynamic assessment using ultrasound in surgical patients' by Miss Zhang Jie
- External examiner (Dissertation) for the degree of Master of Medical Sciences (MMedSc) of the University of Hong Kong (2014 – Present)
- External examiner (Dissertation) for the degree of Doctor of Health Science (DHSc) of the Hong Kong Polytechnic University (2018)

COMMUNITY SERVICES

- Establishment of the Radiation Therapy-Children's Cancer Foundation (RT-CCF) Voluntary Service Team in collaboration with the Hong Kong Children Cancer Foundation & Radiation Therapy Students & Graduates of the HK Polytechnic University.
- List of activities

	DATE	ACTIVITY	TARGET
1	27 Jul 2019	Exercise Experiential Day: Move & Play	Cancer survivors who recently completed treatments
2	7 Jul 2019	Soci-game: Simulation as 1-day University student	Children cancer survivors aged 16+
3	19 Mar 2019	Talk & Open Forum: From treatment to rehab: How to help children getting back to school	Children cancer survivors and their relatives/carers
4	14 Oct 2018	Children's Palliative Care Symposium 2018 cum establishment of the Children's Palliative Care Foundation (CPCF) at the HK Polytechnic University	Health and social service professionals, cancer patients and family members
5	28 Jul 2018	Children Fun Day – Treasure Hunt	Cancer Children and their family members
6	3 Mar 2018	Establishment of the 'Brain Tumour Club' (腦友會)	Children with history of brain cancers & their families
7	30 Dec 2017	Talk & Children activity on 'Radiation Therapy & Management of Paediatric brain tumours'	Children with history of brain cancers & their families
8	13 Oct 2017	Hats On for Children's Palliative Care (ICPCN) – World Day for CPC	Undergraduate students & health professionals
9	21 Jul 2017	Lecture & Workshop: Introduction to Paediatric Anaesthesia	Play therapists & front-line staff of the HK Children Cancer Foundation (CCF)

10	16 Jun 2017	HK Society of Children's Palliative Care - Symposium on 'The Child's right to palliative care: The next horizon for Paediatrics'	Health and social service professionals
11	17 May 2017	Lecture & Workshop: Introduction to Medical Imaging Modalities & Radiation Therapy	Play therapists & front-line staff of the HK Children Cancer Foundation (CCF)
12	14 May 2017	Bereavement Club - Mother's Day Activity: '有情相聚'	Families with children who passed away due to cancer
13	8 Apr 2017	Public Talk organized by the HK Red Cross: Colorectal Cancer - Prevention, Detection, Diagnosis and Treatment	Public audiences (community centre)
13	7 Jan 2017	3Y Farewell Party	Services for family (3Y) with cancer