TAM Shing Yau Marco

(Research Assistant Professor)

[Last Update: 24/8/2021]

QUALIFICATIONS:

2015-2019	PhD	The Hong Kong Polytechnic University (HKPolyU), Hong Kong
2011-2014	BSc in Radiography (1st class Hon)	HKPolyU

BRIEF OUTLINE OF EXPERIENCE AND POSTS HELD:

2020.7-current	Research Assistant Professor	Dept of HTI, HKPolyU
2021.6-2021.8	Visiting Scholar	Department of Micro Engineering, Graduate School of Engineering, Kyoto University, Japan
2020.1-2020.6	Research Associate	Dept of HTI, HKPolyU
2019.9-2019.12	Research Assistant	Dept of HTI, HKPolyU
2014.12-2015.6	Research Assistant	Dept of HTI, HKPolyU

RESEARCH INTERESTS:

i. Tumor microenvironment (Autophagy, Epithelial-mesenchymal transition, Hypoxia, Metastasis, Stemness maintenance)
ii. Colorectal cancer
iii. Organ-on-a-chip
iv. Personalized radiotherapy

SERVICE TO PROFESSIONAL & SCIENTIFIC BODIES, CONSULTANCY, MEMBERSHIP OF PROFESSIONAL & LEARNED SOCIETIES:

2021- Reviewer board member of *Frontiers in Bioscience-Landmark, Frontiers in Oncology*

2021- Ordinary Member of Hong Kong Institution of Science

2020- Member of Hong Kong Association of Radiation Therapists

2020- Member of The Hong Kong Radiographers' Association

2020- Ad Hoc Reviewer for *Biology, Cancers, International Journal of Molecular Sciences, Journal of Cellular and Molecular Medicine and Journal of Selected Topics in Quantum Electronics*

2014- Registered Radiation Therapist (Hong Kong)

AWARDS & PATENTS:

2019 Li Po Chun Charitable Trust Fund Scholarship

2014 First Class Honours in BSc (Hons) in Radiography (Radiation Therapy)

2014 Dean's Honours List, Faculty of Health and Social Sciences, HKPolyU

2011-2014 The Hong Kong Polytechnic University Entry Scholarship (Academic)

REPRESENTATIVE PUBLICATIONS (JOURNAL ARTICLES, BOOK CHAPTERS, MONOGRAPHS AND CONFERENCE PAPERS; TOTAL>20):

I. Peer-Refereed Journal Articles

1. **Tam SY (First Author)**, Tam VCW, Law HKW, Khaw ML, Lee SWY. Rationale for Mass Masking in Controlling the COVID-19 Pandemic. **Front Public Health** 2021;9:665708. Doi: 10.3389/fpubh.2021.665708 **(IF 2020: 3.709)**
2. **Tam SY (First and Corresponding Author)**, Law HKW. JNK in Tumor Microenvironment: Present Findings and Challenges in Clinical Translation. **Cancers** 2021;13:9:2196. Doi: 10.3390/cancers13092196 **(IF 2020: 6.639)**
3. Tam VCW, **Tam SY**, Khaw ML, Law HKW, Chan CPL, Lee SWY. Behavioural Insights and Attitudes on Community Masking during COVID-19 Outbreak in Hong Kong. **HK Med J** 2021;27:Epub 25 Mar 2021. Doi: 10.12809/hkmj209015 **(IF 2020: 2.227)**
4. Klionsky DJ, …, Law HKW, …, **Tam SY** et al. Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). **Autophagy** 2021;1-382. Doi: 10.1080/15548627.2020.1797280 **(IF 2020: 16.016)**
5. Wu VWC, Ying MTC, Kwong DLW, Khong PL, Wong GKW, **Tam SY**. A longitudinal study on parotid and submandibular gland changes assessed by magnetic resonance imaging and ultrasonography in post-radiotherapy nasopharyngeal cancer patients. **BJR Open** 2020:20200003. Doi: 10.1259/bjro.20200003

6. **Tam SY (First Author)**, Tam VCW, Ramkumar S, Khaw ML, Law HKW, Lee SWY. Review on the cellular mechanisms of low-level laser therapy use in oncology. **Front Oncol** 2020;10:1255. Doi: 10.3389/fonc.2020.01255 **(IF 2020: 6.244)**
7. Wu VWC, Ying MTC, Kwong DLW, Khong PL, Wong GKW, **Tam SY**. A Longitudinal Study on Radiation Induced Xerostomia in Radiotherapy of Nasopharyngeal Carcinoma Patients. **J Cancer Sci Ther** 2020;12:6. Doi: 10.37421/jcst.2020.12.343
8. Wu VWC, **Tam SY**. Radiation induced temporal lobe necrosis in nasopharyngeal cancer patients after radical external beam radiotherapy. **Radiat Oncol** 2020;15:112. Doi: 10.1186/s13014-020-01560-0 **(IF 2020: 3.481)**
9. Tam VCW, **Tam SY**, Poon WK, Law HKW, Lee SWY. A reality check on the use of face masks during the COVID-19 outbreak in Hong Kong. **EClinicalMedicine** 2020:100356. Doi: 10.1016/j.eclinm.2020.100356
10. **Tam SY (First Author)**, Wu VWC, Law HKW. Hypoxia-induced Epithelial-Mesenchymal Transition in Cancers: HIF-1α and Beyond. **Front Oncol** 2020;10:486. Doi: 10.3389/fonc.2020.00486 **(IF 2020: 6.244)**
11. **Tam SY (First Author)**, Wu VWC, Law HKW. JNK Pathway Mediates Low Oxygen Level Induced Epithelial-Mesenchymal Transition and Stemness Maintenance in Colorectal Cancer Cells. **Cancers** 2020;12:1:224. Doi: 10.3390/cancers12010224 **(IF 2020: 6.639)**
12. **Tam SY (First Author)**, Wu VWC, Law HKW. Dynamics of oxygen level-driven regulators in modulating autophagy in colorectal cancer cells. **Biochem Biophys Res Commun** 2019;517:2:193-200. Doi: 10.1016/j.bbrc.2019.07.043 **(IF 2020: 3.575)**
13. **Tam SY (First Author)**, Wu VWC. A review on the special radiotherapy techniques of colorectal cancer. **Front Oncol** 2019;9:208. Doi: 10.3389/fonc.2019.00208 **(IF 2020: 6.244)**
14. Islam Khan MZ, **Tam SY**, Law HKW. Autophagy-Modulating Long Non-coding RNAs (LncRNAs) and Their Molecular Events in Cancer. **Front Genet** 2019;9:750. Doi: 10.3389/fgene.2018.00750 **(IF 2020: 4.599)**
15. Lin Z, Yang Z, He B, Wang D, Gao X, **Tam SY**, Wu VWC. Pattern of radiation-induced thyroid gland changes in nasopharyngeal carcinoma patients in 48 months after radiotherapy. PLoS ONE 2018;13;7:e0200310. Doi: 10.1371/journal.pone.0200310 **(IF 2020: 3.240)**
16. Zhang Y, Liu X, Lin C, Lee SWY, **Tam SY**, Wu VWC. Pattern of geometric

changes of parotid gland in conventional and intensity-modulated radiotherapy in nasopharyngeal cancer patients. **Journal of Radiotherapy in Practice** 2018: pp. 1-5. Doi: 10.1017/S1460396918000043

17. **Tam SY (First Author)**, Wu VWC, Law HKW. Influence of Autophagy on the Efficacy of Radiotherapy. **Radiat Oncol** 2017;12:57 Doi: 10.1186/s13014-017-0795-y **(IF 2020: 3.481)**
18. Zhang Y, Lin C, Wu J, Jiang X, Lee SWY, **Tam SY**, Wu VWC. A longitudinal evaluation of early anatomical changes of parotid gland in intensity modulated radiotherapy of nasopharyngeal carcinoma patients with parapharyngeal space involvement. **J Med Radiat Sci** 2017 Mar 4. Doi: 10.1002/jmrs.209
19. Wu VWC, Ying MTC, **Tam SY**, Kwong DLW. A study of the factors affecting radiation-induced temporomandibular joint changes in post-radiotherapy nasopharyngeal carcinoma patients. **J Radiat Oncol** 2016;5(1):41-6. Doi: 10.1007/s13566-015-0215-6

II. Conference Papers

1. **Tam SY**, Law HKW, Wu VWC. Evaluation of oxygen level-driven autophagy regulators in radiosensitivity on colorectal cancer cell. ESTRO Meets Asia 2018, Singapore, 7-9 December 2018. (Abstract and Poster presentation)
2. Wu VWC, Zhang Y, Lin C, Wu J, Jiang X, Lee SWY, **Tam SY**. Monitoring of parotid gland changes in radiotherapy of NPC with parapharyngeal space involvement. ESTRO 36, Vienna, 5-9 May 2017. (Abstract and Poster presentation)
3. Wong MY, **Tam SY**, Lai CWK, Tang FH, Law HKW. Validation of a computer-aided diagnosis program in measuring thoracic curvature from routine chest radiographs. The First Hong Kong Radiographer and Radiation Technologist Conference, Hong Kong, 7-9 June 2013. (Abstract and Poster presentation)

III. Oral Presentation

1. Invited speaker for Seminar in Department of Micro Engineering, Kyoto University, Japan
   (7 July, 2021, Kyoto, Japan)
   "Influence of Oxygen Level in the Tumorigenesis of Colorectal Cancer"

FUNDED GRANTS:

2021.1-2022.12 **Investigation on the psychological needs of post-radiotherapy rectal cancer survivors and their direct caregivers in Hong Kong**
Funded by Faculty Collaborative Research Scheme between Social Sciences and Health Sciences, FHSS, HKPolyU (Project ID: P0034758-ZVSX, HKD250,000, as Principal Investigator)

2021.2-2022.6 **Development of a new undergraduate subject in interdisciplinary cancer research**
Funded by Strategic Plan Initiatives to Expand Research Elements in the Undergraduate Curriculum 2020-22, HKPolyU (HKD400,000, as Co-Project Leader)

2021.4-2023.3 **Deciphering of the role of low oxygen level and JNK pathway in colorectal cancer progression and treatment response**
Funded by Start-up Fund for RAPs under the Strategic Hiring Scheme, HKPolyU (Project ID: P0035477-BD92, HKD250,000, as Principal Investigator)

2021.6-2021.8 **Visualization of tumor microenvironment and epithelial-mesenchymal transition by on-chip vessels (オンチップ血管網による腫瘍微小環境と上皮間葉転換の可視化)**
Funded by Invitational Fellowships for Research in Japan, Japan Society for the Promotion of Science (Project ID: S21027, JPY1,230,000, as Invited Fellow)

2021.7-2023.6 **Evaluation of Treatment induced-ROS in TRAIL-mediated Pathway and Apoptosis in Colorectal Cancer Cells**
Funded by Undergraduate Research and Innovation Scheme (URIS), HKPolyU (Project ID: P0038341-TA44, HKD58,000, as Chief Supervisor)

2021.12-2022.11 **Investigation of the role of JNK in chemoresistance in colorectal cancer (探索 JNK 在结直肠癌细胞化疗耐药中的作用)**
Funded by “百城百園” 專項生命科學研究啟動基金, HKPolyU Shenzhen Research Institute (SZRI) (Project ID: P0035528, RMB225,000, as Principal Investigator)