呂隆昇 Long-Sheng Lu M.D. PhD

Current Appointment
Associate Professor,
Graduate Institute of Biomedical Materials and Tissue Engineering,
International Ph.D. Program in Biomedical Engineering,
International Ph.D. Program for Cell Therapy and Regeneration Medicine,
Deputy Director,
TMU Research Center for Cancer Translational Medicine,
Deputy Director,
Precision Health Research Center,
Taipei Medical University
Attending Physician,
Department of Radiation Oncology,
Taipei Medical University Hospital, Taipei, Taiwan
Chief Medical Officer,
Cancerfree Biotech, Dover, Delaware, USA

Address: No. 252, Wuxing St, Xinyi District, Taipei, Taiwan

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Biography:

Lu is interested in translational radiation oncology and personalized cancer medicine. With clinical specialty in breast and gastrointestinal cancers, his research is aiming at cardiopulmonary protection during cancer therapy, radiation-assisted immunotherapy and personalized cancer medicine. Moreover, he initiated and sat in the molecular tumor board of TMU (2018-) and developed microfluidic circulating tumor cell technologies for personalized cancer medicine. He has published 66 original papers, 2 book chapters and holds 6 patents (licensed to Cancerfree and Bosomeer). He received Taiwanese academic and innovative entrepreneurship awards including Junior Faculty Career Development Award from Taiwan Society for Therapeutic and Radiation Oncology (2018), National Innovation Award (2019, 2020, 2021) and FITI Entrepreneurship Award (2017, 2018) from Taiwanese Ministry of Science and Technology.

Education and Employment

EDUCATION

INSTITUTION AND LOCATION	DEGREE	DURATION	FIELD OF STUDY
Institute of Pharmacology/ National Taiwan University, Taiwan	Ph.D.	2000~2007	Cardiovascular Pharmacology
Department of Medicine/ National Taiwan University, Taiwan	M.D.	1994~2000	Medicine

EMPLOYMENT (Include postdoctoral training)

INSTITUTION AND LOCATION	POSITION TITLE	DURATION	FIELD OF STUDY
Cancerfree Biotech Ltd. Taipei Branch, Taipei, Taiwan	Chief Medical Office (joint	2024~now	Development and application of circulating

	appointment)		tumor cell derived organoids
TMU Research Center for Cancer Translational Medicine/Taipei Medical University	Deputy Director	2023~now	Cancer translational research
Precision Medicine Research Center/Taipei Medical University Hospital, Taipei, Taiwan	Member	2024~now	Precision medicine clinical practice
Center for Cell Therapy/Taipei Medical University Hospital, Taipei, Taiwan	Director	2022~2024	Clinical and investigational cell therapy
Center for Cancer Research Excellence/Taipei Medical University Hospital	Deputy Director	2021~2023	Application of organoid technology
Department of Radiation Oncology/Taipei Medical University Hospital	Attending Physician	2017~ now	Radiation oncology
Graduate Institute of Biomaterials and Tissue Engineering/Taipei Medical University	Associate Professor	2022~now	Biomedical materials and tissue engineering
Graduate Institute of Biomaterials and Tissue Engineering/Taipei Medical University	Assistant Professor	2015~ 2022	Biomedical materials and tissue engineering
International Ph.D. Program in Biomedical Engineering, College of Biomedical Engineering/Taipei Medical University	Joint appointment faculty	2018~now	Biomedical materials and tissue engineering
International Ph.D. Program for Cell Therapy and Regeneration Medicine, College of Medicine/Taipei Medical University	Joint appointment faculty	2018~now	Clinical application of circulating tumor cells and derived technology
Department of General Medicine and Radiation Oncology/Taipei Medical University Hospital	Resident	2012~2017	Radiation oncology
Texas Heart Institute/Dept. of Cardiology/MD Anderson Cancer Center, Houston Texas USA	Postdoctoral fellow	2007~2012	Molecular and cellular cardiology, Cardio-oncology, mitochondrial biology

Professional Societies and Services

1. Taiwan society for therapeutic radiology and oncology
   Chairperson and board member, Systemic therapy committee
   Appointed member, Board certification committee
   Member
2. American society for therapeutic radiation oncology
   Member
3. European society for radiotherapy & oncology
   Member
4. Taiwan society of engineering technology and practical medicine
   Board member, Public relationship committee
   Member
5. Taiwanese society of biomedical engineering
   Member
6. Asia-Pacific Biomedical Device Association
   Board member, Medical liaison committee
   Member

Honors and awards

1. Tzu-Chi medical scholarship (1999)
2. NHRI predoctoral fellowship for MD/DDS (2001-2004)

3. Taiwan merit scholarship (2007-2009)
4. Junior Faculty Career Development Award, TASTRO (2018)
5. FITI Entrepreneurship Award (2017, 2018)
6. National innovation award (2019, 2020, 2021, 2022, 2023)

List of Published Work

1. Journal articles

1. Sun CW, **Lu LS**, Yang CC, Kiang YW, Su MJ: Myocardial tissue characterization based on the time-resolved stokes-mueller formalism. Optics Express 2002;10:1347-1353.
2. Liu YB, Wu CC, **Lu LS**, Su MJ, Lin CW, Lin SF, Chen LS, Fishbein MC, Chen PS, Lee YT: Sympathetic nerve sprouting, electrical remodeling, and increased vulnerability to ventricular fibrillation in hypercholesterolemic rabbits. Circ Res 2003;92:1145-1152.
3. Lin LC, Wu CC, Yeh HI, **Lu LS**, Liu YB, Lin SF, Lee YT: Downregulated myocardial connexin 43 and suppressed contractility in rabbits subjected to a cholesterol-enriched diet. Lab Invest 2005;85:1224-1237.
4. **Lu LS**, Liu YB, Sun CW, Lin LC, Su MJ, Wu CC: Optical mapping of myocardial reactive oxygen species production throughout the reperfusion of global ischemia. J Biomed Opt 2006;11:021012.
5. Sun CW, Wang YM, **Lu LS**, Lu CW, Hsu IJ, Tsai MT, Yang CC, Kiang YW, Wu CC: Myocardial tissue characterization based on a polarization-sensitive optical coherence tomography system with an ultrashort pulsed laser. J Biomed Opt 2006;11:054016.
6. **Lu LS**, Wu CC, Hung LM, Chiang MT, Lin CT, Lin CW, Su MJ: Apocynin alleviated hepatic oxidative burden and reduced liver injury in hypercholesterolaemia. Liver Int 2007;27:529-537.
7. Deng JY, Huang JP, **Lu LS**, Hung LM: Impairment of cardiac insulin signaling and myocardial contractile performance in high-cholesterol/fructose-fed rats. Am J Physiol Heart Circ Physiol 2007;293:H978-987.
8. **Lu LS**, Hung LM, Liao CH, Wu CC, Su MJ: Effects of rosiglitazone on native low-density-lipoprotein-induced respiratory burst in circulating monocytes and on the leukocyte-endothelial interaction in cholesterol-fed rats. Naunyn Schmiedebergs Arch Pharmacol 2007;375:251-260.
9. Wu CC, Wang YM, **Lu LS**, Sun CW, Lu CW, Tsai MT, Yang CC: Tissue birefringence of hypercholesterolemic rat liver measured with polarization-sensitive optical coherence tomography. J Biomed Opt 2007;12:064022.
10. Wu CC, Hong BF, Wu BH, Yang SY, Horng HE, Yang HC, Tseng WYI, Tseng WK, Liu YB, Lin LC, **Lu LS**, Lee YH: Animal magnetocardiography using superconducting quantum interference device gradiometers assisted with magnetic nanoparticle injection: A sensitive method for early detecting electromagnetic changes induced by hypercholesterolemia. Applied Physics Letters 2007;90:054111.
11. Deng JY, Hsieh PS, Huang JP, **Lu LS**, Hung LM: Activation of estrogen receptor is crucial for resveratrol-stimulating muscular glucose uptake via both insulin-dependent and -independent pathways. Diabetes 2008;57:1814-1823.
12. Wu CC, Liu YB, **Lu LS**, Lin CW: Imaging reactive oxygen species dynamics in living cells and tissues Frontiers in Bioscience (scholar edition) 2009;s1:39-44
13. Dou H, Huang C, Nguyen TV, **Lu LS**, Yeh ETH: SUMOylation and de-SUMOylation in response to DNA damage. FEBS Lett 2011;585:2891-2896.

14. Nguyen TV, Angkasekwinai P, **Lu LS**, Lin FM, Dou H, Cheng J, Chin YE, Dong C, Yeh ETH: SUMO-Specific Protease 1 Is Critical for Early Lymphoid Development through Regulation of STAT5. Mol Cell 2012;45:210-21.
15. Bawa-Khalfe T, **Lu LS**, Zuo Y, Huang C, Yeh ET: Differential expression of SUMO-specific protease 7 variants regulates epithelial-mesenchymal transition. Proc Natl Acad Sci U S A. 2012;109:17466-71.
16. Zhang S, Liu X, Bawa-Khalfe T, **Lu LS**, Lyu YL, Liu LF, Yeh ET: Identification of the molecular basis of doxorubicin-induced cardiotoxicity. Nat Med. 2012;18:1639-42.
17. Chu CS, Wang YC, **Lu LS**, Walton B, Yilmaz HR, Huang RY, Sawamura T, Dixon RA, Lai WT, Chen CH, Lu J: Electronegative low-density lipoprotein increases C-reactive protein expression in vascular endothelial cells through the LOX-1 receptor. PLoS One 2013;8(8):e70553
18. **Lu LS**, Pan CH, Lin YH, Lai HY, Tai CJ, Hsu CY, Chiou JF, Ting LL: Salvage Concurrent Chemoradiation Therapy Stabilizes Progression of Recurrent Intimal Sarcoma of the Left Atrium: A Case Report. Therapeutic Radiology and Oncology 2016;23:265-270
19. Wang YC*, Lee AS*, **Lu LS***, Ke LY, Chen WY, Dong JW, Lu J, Chen Z, Chu CS, Chan HC, Kuzan TY, Tsai MH, Hsu WL, Dixon RAF, Sawamura T, Chang KC, Chen CH. Human electronegative LDL induces mitochondrial dysfunction and premature senescence of vascular cells in vivo. Aging Cell. 2018 Aug;17(4):e12792. doi:10.1111/acel.12792.
20. Burnoff T, Burnouf PA, Wu YW, Chuang EY, **Lu LS**, Goubran HA: Circulatory cells-mediated nanotherapeutic approaches in disease targeting. Drug Discovery Today 2018 May;23(5):934-943.
21. **Lu LS**, Chen YJ, Lin YT, Lee JT, Chiou JF: Ionizing radiation-induced cancer stemness gene expression is regulated by matrix nanotopography. Therapeutic Radiology and Oncology 2018;25(1):1-11
22. Wu CJ, Tsai YT, Lee IJ, Wu PY, **Lu LS**, Tsao WS, Huang YJ, Chang CC, Ka SM, Tao MH. Combination of radiation and interleukin 12 eradicates large orthotopic hepatocellular carcinoma through immunomodulation of tumor microenvironment. Oncoimmunology. 2018 Jul 23;7(9):e1477459.
23. Chen YJ, Kuo CC, Ting LL, **Lu LS**, Lu YC, Cheng AJ, Lin YT, Chen CH, Tsai JT, Chiou JF: Piperlongumine inhibits cancer stem cell properties and regulates multiple malignant phenotypes in oral cancer. Oncology Letters 2018 Feb;15(2):1789-1798
24. Wang WJ, Lee KD, Chen WY, Chiou JF, **Lu LS**: Combining hypofractionated radiation therapy with immunotherapy for anorectal malignant melanoma: a case report. Therapeutic Radiology and Oncology 2019;3:1 doi: 10.21037/tro.2018.12.09.
25. Chu HY*, **Lu LS***, Cho W, Wu SY, Chang YC, Lin CP, Yang CY, Lin CH, Jiang JK, Tseng FG: Enumerating circulating tumor cells with selfassembled cell array (SACA) chip: a feasibility study in patients with colorectal cancer. Cancers (Basel). 2019 Jan 8;11(1). pii: E56. doi: 10.3390/cancers11010056.
26. Huang CF, Colley MMS, **Lu LS**, Chang CY, Peng PW, Yang TS: Performance characterization of continuous-wave laser-induced forward transfer of liquid bioink. Applied Physics Express, 2019 12(11)116504.
27. Lin CH, Lee HH, Kuei CH, Lin HY, **Lu LS**, Lee FP, Chang J, Wang JY, Hsu KC, Lin YF. Nicotinic Acetylcholine Receptor Subunit Alpha-5 Promotes Radioresistance via Recruiting

E2F Activity in Oral Squamous Cell Carcinoma. J Clin Med. 2019 Sep 12;8(9). pii: E1454. PubMed Central PMCID: PMC6780171.

28. Lee HH, Lin CH, Lin HY, Kuei CH, Zheng JQ, Wang YH, **Lu LS**, Lee FP, Hu CJ, Wu D, Lin YF. Histone 2A Family Member J Drives Mesenchymal Transition and Temozolomide Resistance in Glioblastoma Multiforme. Cancers (Basel). 2019 Dec 30;12(1). pii: E98. doi: 10.3390/cancers12010098.
29. Wu YW, Huang CC, Changou CA, **Lu LS**, Goubran H, Burnouf TH: Clinical-grade cryopreserved doxorubicin-loaded platelets: role of cancer cells and platelets extracellular vesicles activation loop. J Biomed Sci 2020 Mar 23;27(1)45. Doi: 10.1186/s12929-020-00633-2. PMID 32200762
30. Goudar VS, Yeh PH, Wu SY, Chu CH, **Lu LS**, Yang CH, Chiou TJ, Tseng FG: Live Circulating Tumour Cells Selection on Digitized Self-Assembled Cell Array (Digi-SACA) Chip by In-Parallel/ In-Situ Image Analysis, Cell Capture and Cultivation. Sensors & Actuators: B. Chemical 2020 Aug 1;316:128002. doi.org/10.1016/j.snb.2020.128002
31. Liu CS, Cheng CJ, Liu YR, Yeh SD, Jeng SC, **Lu LS***, Chiou JF*: Complete Response After Radiation-Assisted Immunotherapy For Metastatic Urothelial Carcinoma: A Case Report and Literature Review. Therapeutic Radiology and Oncology 2020 (accepted 2020 Aug 18)
32. Chu HY, Chen YJ, Hsu CJ, Liu YW, Chiou JF, **Lu LS** *, Tseng FG*: Physical Cues in the Microenvironment Regulate Stemness-Dependent Homing of Breast Cancer Cells. Cancers (Basel). 2020 Aug 5;12(8). E2176. doi: 10.3390/cancers12082176.
33. Kuei CH, Lin HY, Lin MH, Lee HH, Lin CH, Lee WJ, Chen YL, **Lu LS**, Zheng JQ, Hung RC, Chiu HW, Chen KC, Lin YF. DNA polymerase theta repression enhances the docetaxel responsiveness in metastatic castration-resistant prostate cancer. BBA - Molecular Basis of Disease 2020 2020 Dec 1;1866(12):165954. doi: 10.1016/j.bbadis.2020.165954. Epub 2020 Aug 30.
34. Lin CH, Lee HH, Lee FP, Chen LC, **Lu LS**, Lin YF. FOXD1 repression potentiates radiation effectiveness by downregulating G3BP2 expression and promoting the activation of TXNIP-related pathways in oral cancer. Cancers (Basel). 2020 Sep 16;12(9), E2690. Doi:10.3390/cancers12092690
35. Lu KY, Jheng PR, **Lu LS**, Rethi L, Mi F, Chuang EY. Enhanced anticancer effect of ROS-boosted photothermal therapy by using fucoidan-coated polypyrrole nanoparticles. Int J Biol Macromol. 2020 Oct 20; (20)34724-3. doi: 10.1016/j.ijbiomac.2020.10.091.
36. Lee HL, Chiou JF, Wang PY, **Lu LS**, Shen CN, Hsu HL, Burnouf T, Ting LL, Chou PC, Chung CL, Lee KL, Shiah HS, Liu YL, Chen YJ: Ex Vivo Expansion and Drug Sensitivity Profiling of Circulating Tumor Cells from Patients with Small Cell Lung Cancer. Cancers (Basel). 2020 Nov 12;12(11), E3394. Doi:10.3390/cancers12113394
37. Chen YJ, You GR, Lai MY, **Lu LS**, Chen CY, Ting LL, Lee HL, Kanno Y, Chiou JF, Cheng AJ: A Combined Systemic Strategy for Overcoming Cisplatin Resistance in Head and Neck Cancer: From Target Identification to Drug Discovery. Cancers (Basel). 2020 Nov 21;12(11), E3482. Doi:10.3390/cancers12113482
38. Liu CS, Tsai JR, Kao YT, **Lu LS**, Chen YJ, Burnouf T, Wang PY, Chiou JF, Ting LL: Chemoradiotherapy for Inoperable Carotid Body Leiomyosarcoma: A case Report and Review of Literature. Frontiers in Oncology 2021 Feb 11;10:599403. doi: 10.3389/fonc.2020.599403.

39. Wang WJ, Lee KD, **Lu LS**, Chiou JF, Ting LL, Treating leptomeningeal metastases from primary hepatic neuroendocrine carcinoma with combined radiotherapy and immunotherapy: a case report. Therapeutic Radiology and Oncology 2021;5:5 doi: 10.21037/tro-19-103
40. Hsiao YC, Jheng PR, Nguyen HT, Chen YH, Manga YB, **Lu LS**, Rethi L, Chen CH, Huang TW, Lin JD, Chang TK, Ho YC, Chuang EY. Photothermal-Irradiated Polyetherimide-Polypyrrole Nano-Pigments Film-Coated Polyethylene Fabrics for Infrared-Inspired with Pathogenic Evaluation. ACS Applied Materials & Interfaces. 2021 Jan 20;13(2):2483-2495. doi: 10.1021/acsami.0c17169.
41. Kuo SP, Chang HC, **Lu LS**, Liu DZ, Wang TJ, Activation of Keap1/Nrf2/ARE Pathway by Curcumin Enhanced the Anti-oxidative Capacity of Corneal Endothelial Cells. Biomedicine & Pharmacotherapy 2021 Jun 141:111834. doi: 10.1016/j.biopha.2021.111834
42. Li TJ, Lin TW, Wu SP, Chu HT, Kuo YH, Chiou JF, **Lu LS***, Chen CC*, Safety, Stability and Patient-Derived Tumor Chemosensitization of GKB202, An Antrodia Cinnamomea Mycelium-Derived Bioactive Compound. Molecules 2021 Oct 4;26(19):6018.
43. Goudar VS, Koduri MP, Ngoc Ta YN, Chen YC, Chu LA, **Lu LS***, Tseng FG*, The Impact of Desmoplastic Tumor Microenvironment for Colon Cancer Drug Sensitivity: A Study with 3D Chimeric Tumor Spheroids. ACS Applied Materials & Interfaces. 2021 Oct 20;13(41):48478-48491.
44. Wong PC, Wang RY, **Lu LS**, Wang WR, Jang JSC, Wu JL, Su TY, Chang LH, Two-step approach to inhibit surface biofilm and kill subsequent planktonic bacteria. Biomedicines 2021 Nov 12;9(11):1677.
45. Yang TY, Kuo PY, Huang Y, Lin HW, Malwade S, **Lu LS**, Tsai LW, Shabbir SA*, Sun CW* and Chiou JF*. Deep-Learning Approach to Predict Survival Outcomes using Wearable Actigraphy among End-Stage Cancer Patients. Frontiers in Public Health 2021 Dec 9;9:730150.
46. Lin KC, Ting LL, Chang CL, **Lu LS**, Lee HL, Hsu FC, Chiou JF, Wang PY, Burnouf T, Ho DCY, Yang KC, Chen CY, Chen CH, Wu CZ, Chen YJ, Ex Vivo Expanded Circulating Tumor Cells for Clinical Anti-Cancer Drug Prediction in Patients with Head and Neck Cancer, Cancers (Basel). 2021 Dec 2;13(23):6076
47. **Lu LS***, Wu YW*, Chang JT, Chang WT, Chao TH, Chen HH, Chen YJ, Cheng KH, Sheung PW, Hsu WL, Hung CL, Kuo SH, Liang CA, Lin HJ, Liu PY, Liu WS, Liu YW, Wang CY, Ho CJ, Chiou JF, TASTRO-TSOC Cardio-oncology Task Force, Risk Management for Radiation Induced Cardiovascular Disease (RICVD): The 2021 Taiwan Society for Therapeutic Radiology and Oncology (TASTRO) and Taiwan Society of Cardiology (TSOC) Consensus, Acta Cardiol Sin. 2022 Jan;38(1):1-12.
48. Hsu FC, Chen YJ, Shen YA, Tsai YC, Wu MH, Kuo CC, **Lu LS**, Yeh SD, Huang WS, Lee HL, Shen CN, Chiou JF, A Few-Shots Learning Approach Assists Prognosis Prediction of Magnetic Resonance-guided Focused Ultrasound for Bone Metastatic Lesions Local Control. Cancers (Basel) 2022 Jan 17;14(2):445.
49. Enkhbat M, Zhong B, Chang R, Geng J, **Lu LS**, Chen YJ, Harnessing the in vitro anoikis of A549 non-small cell lung cancer (NSCLC) using chemical drugs and colloidal self-assembled patterns (cSAPs). ACS Appl Bio Mater. 2022 Jan 17;5(1):322-333
50. Wu YH, Hung YP, Chiu NC, Lee RC, Li CP, Chao Y, Shyr YM, Wang SE, Chen SC, Lin SH, Chen YH, Kang YM, Hsu SM, Yen SH, Wu JY, Lee KD, Tseng HE, Tsai JR, Tang RH, Chiou JF, Burnouf T, Wang PY, Chen YJ, **Lu LS**, Correlation Between Drug Sensitivity Profiles of Ex

Vivo Expanded Circulating Tumor Cells and Clinical Treatment Response in Pancreatic Ductal Adenocarcinoma Patients, Eu J Cancer, 2022 May;166:208-218.

51. Gbetuwa M, **Lu LS**, Wang TJ, Chen YJ, Chiou JF, Su TY, Yang TS, Nucleus near-infrared (nNIR) irradiation of single A549 cells induces DNA damage and activates EGFR leading to mitochondrial fission. Cells, 2022 Feb 11;11(4):624.
52. Pan LC, Hang NL, Colley MMS, Chang J, Hsiao YC, **Lu LS**, Li BS, Chang CJ, Yang TS, Single Cell Effects of Photobiomodulation on Mitochondrial Membrane Potential and Reactive Oxygen Species Production in Human Adipose Mesenchymal Stem Cells. Cells, 2022 Mar 11;11(6):972. doi: 10.3390/cells11060972.
53. Burnouf T, Jheng PR, Chen YH, Rethi L, Rethi L, **Lu LS**, Ho YC, Chuang EY, Near-infrared-driven photoablation of lung cancer tumors utilizing biomimetic platelet-polyethyleneimine-polypyrrole drug-free nanoparticles. Materials & Design, 2022 Mar 215:110481. doi.org/10.1016/j.matdes.2022.110481.
54. Chen CP, Lin CY, Lin HY, Kuo CC, Chen TH, Lin SC, Tseng KH, Cheng HW, Chao HL, Yen SH, Lin RY, Feng CJ, **Lu LS***, Chiou JF*, Hsu SM*, Skin Surface Dose for Whole Breast Radiotherapy Using Personalized Breast Holder: Comparison with Various Radiotherapy Techniques, Cancers, 2022 May (accepted)
55. Chen CP, Chen YJ, Chiou JF, Kuo CC, Chen TH, Tseng KH, Chung MY, Chen CY, Wu JY, **Lu LS***, Hsu SM*, Retrospective analysis for dose reduction to organs at risk with new personalized breast holder (PERSBRA) in left-sided whole-breast radiation therapy. J Pers Med, 2022 Aug (accepted)
56. Rethi L, Mutalik C, Anurogo D, **Lu LS**, Chu HY, Kuo TR, Cheng TM. Insights on Lipid-Based Nanoparticles Conjugation and Drug Delivery Systems in Breast Cancer Therapy. Nanomaterials, 2022 Aug; 12 (17):2948.
57. Rethi L, Chinmaya M, Rethi L, Chiang WH, Lee HL, Pan WY, Yang TS, Chen YJ, Chiou JF, Chuang EY*, **Lu LS***, Molecularly Targeted Photothermal Ablation of Epidermal Growth Factor Expressing Cancer Cells with a Polypyrrole-Iron Oxide-Afatinib Nanocomposite, Cancers, 2022 Oct; 14(20), 5043; https://doi.org/10.3390/cancers14205043
58. Huang JH, Chen SH, Kao YC, Ho WL, Chang H, Tsai ML, Lee HL, Kuo CC, Tseng SH, Chang CY, Hsieh KL, **Lu LS**, Chen YJ, Chiou JF, Hsieh TH, Liu YR, Hsu W, Li WT, Wu YC, Wu WC, Wang JL, Tsai JJ, Wong TT, Miser JS, Liu YL, Feasibility and Toxicity of Interval-Compressed Chemotherapy in Asian Children and Young Adults with Round Cell Sarcoma, J Pers Med 2023 Apr; 13(4):668. doi: 10.3390/jpm13040668.
59. Chuang TY, Juo LY, Yao, R, Wu SP, **Lu LS**, Liu YW, Ex Vivo Circulating Tumor Cell as a Novel Personalized Pretreatment Biomarker for Curcumin, International Journal of Biological Markers (submitted)
60. Wu YH, Chao HS, Chiang CL, Luo YH, Chiu CH, Yen SH, Liu CY, Chiou JF, Burnouf T, Chen YJ, Wang PY, Chao TY, Hsu SM* and **Lu LS***, Personalized cancer avatars for patients with thymic malignancies: a pilot study with circulating tumor cell-derived organoids, Thorac Cancer, 2023 2023 Sep;14(25):2591-2600. doi: 10.1111/1759-7714.15039.
61. Chang JW, Chen AY, Li IC, Lin TW, Tang CH, Chu HT, Wu SP, Chen YL, **Lu LS***, Li TJ*, Chen CC*, Inhibition of Endothelial-1 Expression by GKB202 in Patient Circulating Tumor Cells and Endothelial Cells to Reduce Tumor Metastasis, Journal of Translational Medicine, submitted

62. Liu CS, Hsish LC, Chiou JF, Lu LS, CSF Dissemination of EGFR-Mutant Lung Cancer Present as Cranial Nerve Injury and Masticator Muscle Denervation: A Case Report and Literature Review, Frontier Oncol, 2023 (submitted)
63. Wu YW, Lee DY, Lu YL, Delila L, Nebie O, L, Changou A, Lu LS, Goubran H, Burnouf T. Platelet extracellular vesicles are efficient delivery vehicles of doxorubicin, an anti-cancer drug: preparation and in vitro characterization, Platelets, Platelets. 2023 Dec;34(1):2237134. doi: 10.1080/09537104.2023.2237134.
64. Chang CY, Aviña AE, Chang CJ, Lu LS, Chong YY, Ho TY, Yang TS. (2024,May). Exploring the biphasic dose-response effects of photobiomodulation on the viability, migration, and extracellular vesicle secretion of human adipose mesenchymal stem cells.. Journal of Photochemistry and Photobiology B:Biology, 256:112940.
65. Wu KC, Hsieh TC, Hsu ZK, Chang CJ, Yeh YC, Lu LS, Chang YY, Kao CH. Application of deep learning in automated localization and interpretation of coronary artery calcification in oncological PET/CT scans. Int J Cardiovasc Imaging. 2025 Mar;41(3):453-465. doi: 10.1007/s10554-025-03327-8. Epub 2025 Jan 13. PMID: 39804436.
66. Hu YF, Chen AY, Chang JW, Chen SY, Li IC, Chou RH, Lin TW, Wu SP, **Lu LS***, Li TJ, Chen CC. GKB202 suppresses endothelin-1/ERK signaling in pancreatic cancer cells: Potential implications for circulating tumor cell regulation. Biomed Pharmacother. 2025 Aug;189:118341. doi: 10.1016/j.biopha.2025.118341. Epub 2025 Jul 16. PMID: 40669304.

Books / Chapters

1. **Lu LS**, Yeh ETH: SENP3 and SENP5 Peptidases, in Handbook of Proteolytic Enzymes 3rd ed. Elsevier; In Press
2. **Lu LS**, Yeh ETH: Ubiquitin-like Proteins, in Encyclopedia of Biological Chemistry 2nd ed. Elsevier; 2012

Patents

1. Long-Sheng Lu, Kuo-Hsiung Tseng, Der-Chi Tien, Meng-Yun Chung. Breast support device for radiotherapy, US Patent Number 15/841,377, 2017
2. Peng-Yuan Wang, Yin-Ju Chen, Long-Sheng Lu and Thierry Burnouf. Method and kit for expanding circulating tumor cells in vitro, US Patent Number 20190300832, 2020/9/29
3. 曾繁根,呂隆昇,朱學瑤,邱名璿,徐俊傑. 仿生微管及其製備方法 中華民國 108103973 201902~203902
4. 王鵬元 WANG, PENG-YUAN; 陳盈汝 CHEN, YIN-JU; 呂隆昇 LU, LONG-SHENG; 白台瑞 BURNOUF, THIERRY. 用於體外擴增循環腫瘤細胞的方法及其套組中華民國 I672376 201909~203909
5. 呂隆昇、曾國雄、鍾孟雲、田德之. 乳癌の放射線治療用補助具 日本 特 願 2018-022913 202001~203501
6. 呂隆昇、曾國雄、田德之、鍾孟雲. 用於乳癌放射性治療之輔具 中華民國發明第 I718361 號 2021.2.21~2038.2.12

List of Current Grant Support

科技部計畫

1. Project Co-PI: 2020/08/01-2021/07/31 科技部一般研究計畫 NTD 1,100,000 元

乳癌細胞 α9 尼古丁受體作為新穎靶向 RNA 奈米藥物與 T 細胞療法之臨床轉譯研究 - 探討 α9 尼古丁受體基因表現在乳癌病人血液循環腫瘤細胞/游離 DNA 於乳癌治療的應用(1/3)(109-2320-B-038-025-)

Project Co-PI: 2020/08/01-2021/07/31 科技部一般研究計畫 NTD 1,100,000 元

以循環腫瘤細胞預測肝癌治療反應及其機制探討(109-2314-B-038-122-)

Project PI: 2020/08/01-2021/07/31 科技部新進人員研究計畫 NTD 1,270,000 元

以循環腫瘤細胞模式探討軟組織肉瘤的藥物治療策略(2/2)(109-2314-B-038-141-)

Project Co-PI: 2020/08/01-2021/07/31 科技部一般研究計畫 NTD 1,210,000 元

以體外循環腫瘤細胞擴增系統發展兒童神經腫瘤精準醫療策略(109-2314-B-038-072-)

Project Co-PI: 2020/08/01-2021/07/31 科技部鼓勵女性從事科學及技術研究專案計畫 NTD 950,000 元

以體外擴增循環腫瘤細胞系統預測腫瘤治療反應(109-2635-B-038-001-)

Project Co-PI: 2020/08/01-2021/07/31 科技部一般研究計畫 NTD 1,076,000 元

電火花放電法製備奈米合金膠體最佳製程參數與其應用之研究(109-2221-E-027-063-)

Project Co-PI: 2020/06/01-2021/05/31 科技部產學合作研究計畫 NTD 2,730,000 元

以體外擴增循環腫瘤細胞系統預測腫瘤治療反應(1/2)(109-2622-E-038-003-CC1)

Project Co-PI: 2019/08/01-2022/07/31 科技部雙邊協議型擴充加值(add-on)國際合作研究計畫 NTD 3,635,000 元

智能人類血小板顆粒結合多功能聚合物載體做為新型治療的生物醫學平台(108-2221-E-038-017-MY3)

Project Co-PI: 2019/01/01-2021/12/31 科技部一般研究計畫 NTD 4,600,000 元

開發功能性感溫水膠於腫瘤血管正常化與合併放射及免疫共治療上之應用(108-2923-E-011-005-MY3)

產學合作計畫

Project PI: 2020/07/01-2021/06/31 和鑫生技開發股份有限公司 NTD 176,470 元

重原子藥物對 NanoRay 與醫用直線加速 器射束性質的影響研究計畫

Project PI: 2020/06/01-2021/05/31 精拓生技股份有限公司 NTD 1,941,454 元

產學合作計畫 - 以體外擴增循環腫瘤細胞系統預測腫瘤治療反應(1/2)