OMB No. 0925-0001/0002 (Rev. 08/12 Approved Through 8/31/2015)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.

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NAME Junling Li	POSITION TITLE Instructor Term of Radiology
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Qingdao University of Sci & Tech, China	B.S.	07/96	Applied Chemistry
Qingdao University of Sci & Tech, China	M.S.	07/99	Applied Chemistry
Shanghai Institute of Applied Physics	Ph.D.	03/03	Radiochemistry

A. Personal Statement

As a Ph.D. student in Chinese Academy of Sciences, my research has been focused on development of novel PET biomarkers for cancer imaging. Ever since then, I have developed fundamental and distinguished skills in the field of chemistry and drug development. My experience has been further solidified and improved during the periods of being a guest scientist in German Cancer Research Institute and being a post-doc at the University of Louisville. Currently, I am a research faculty in the department of Radiology at the University of Louisville School of Medicine. In the past 5 years, I have expanded my research field from chemistry and drug development to molecular imaging, cancer biology and infectious diseases including development of various biomarkers for imaging (PET, SPECT, optical and MRI), tissue culture and animal studies. I have proven outstanding scientific research expertise in PET & SPECT drug development and optical imaging agent development. I have demonstrated exceptional skills and extraordinary ability in tissue culture, animal studies, flow cytometry, fluorescent microscope images, radiolabeling with ^{18}F, radiolabeling optimization, ^{18}F-intermediates separation and purification, RP-HPLC skills, *in vivo* pharmacokinetics characterization, etc. I have published many research articles and been invited to present my research work in various national and international conferences. I have served as an expert reviewer for several prestigious journals and won several national and international awards. I am a full member of two well-recognized organizations: Society of Nuclear Medicine and Molecular Imaging (SNMMI) and The World Molecular Imaging Society (WMIS).

B. Positions and Honors

Positions and Employment

2003-2004 Research Assistant Professor, Shanghai Institute of Applied Physics
2004 Guest Scientist, German Cancer Research Center
2005-2008 Postdoctoral Fellow, University of Louisville
2008-2011 Research Scientist, University of Louisville
2012- Instructor term, University of Louisville

Other Experience and Professional Memberships

2007 American Chemical Society

2006-	Society of Nuclear Medicine
2006	Academy of Molecular Imaging
2006-2007	American Association for the Advancement of Science
2009-2010	American Association of Cancer Research
2009-2010	Sigma Xi
2009-	SNMMI
2013-	WMIS

Honors

2004	Outstanding Guest Scientist Scholarship, DKFZ, Germany
2005	James Brown Cancer Center Pos-doc Fellowship, Univ. of Louisville
2009	Travel Award, 2009 World Molecular Imaging Congress, Montreal, Canada
2010	Travel Award, 2009 SNM Midwinter Meeting, Clearwater, FL, USA.

Journal Review Activities

Associate Editor of the Journal of Radioanalytical & Nuclear Chemistry
Acta Pharmacologica Sinica
Journal of Labelled Compounds and Radiopharmaceuticals
Chinese Nuclear Sciences and Technology

Invited Book Chapter

Junling Li, Chin, K. Ng. Methods for Nanoparticle Conjugation to Monoclonal Antibodies. Book Title: Antibody Mediated (mAb) Drug Delivery System (DDS): Concepts and applications. Publisher: John Wiley & Sons.

C. Contribution to Science

Cancer Imaging. My earlier work as a Ph.D. student, guest scientist and pos-doc has been deeply immersed in the development of novel imaging agents for cancer imaging. I have synthesized and validated many biomarkers including ^{18}F labeled peptides, proteins and small molecules for cancers. The work using ^{64}Cu-CB-TE2A-AS1411 for aptamer imaging has demonstrated the great promise of this tracer as an imaging tracer for lung cancer. In addition, the research work using a series of ^{18}F-DPA compounds also showed promising results in imaging apoptosis in cancers.

1. **Li J**, Zheng HY, Malik T , Li XF, Bates PJ, Trent J, Ng CK. Aptamer Imaging with Cu-64 Labeled AS1411 Targeting Lung Cancer. Nucl Med Biol. 2014 Feb;41(2):179-85. PMID: 24373858
2. Tao Huang, A. Cahid Civelek, **Junling Li**, Baozhong Shen, Huaiyu Zheng, Huijie Jiang, Gregory Postel, Chin K Ng, Xiao-Feng Li. Tumor microenvironment dependent 18F-FDG, 18F-FLT and 18F-FMISO uptake in NSCLC mouse metastatic models: A pilot study. J. Nucl Med. 2012 Aug; 53(8):1262-8. PMID: 22717978
3. **Junling Li**, John O. Trent, Paula J. Bates, Chin K. Ng. Factors affecting the labeling yield of F-18-labeled AS1411. Journal of Labelled Compounds and Radiopharmaceuticals 2007; 50: 1255-1259. DOI: 10.1002/jlcr.1457
4. **Junling Li**, John O. Trent, Paula J. Bates, Chin K. Ng. Labeling G-rich Oligonucleotides (GROs) with N-succinimidyl 4-[^{18}F]Fluorobenzoate (S^{18}FB). Journal of Labelled Compounds and Radiopharmaceuticals 2006; 49: 1213-1221. DOI: 10.1002/jlcr.1136**.**

Infectious Disease Imaging. Based on the experience working in cancer imaging, I have expanded the research work to the field of injectious disease imaging by collaboration with other groups. I have developed a novel imaging agent ^{18}F-FDS for imaging bacterial infection in lung, which was recently published in the Journal of Nuclear Medicine. In addition, I also developed biomarker for imaging influenza virus.

1. Li J, Zheng HY, Fodah RA, Warawa J, Ng CK. Validation of 2-^{18}F-fluorodeoxysorbitol (^{18}F-FDS) as a potential radiopharmaceutical for imaging bacterial infection in the lung. . J Nucl Med January 1, 2018 vol. 59 no. 1 134-139

2. **Li J,** Gerlach RL, Jonsson CB, Gray BD, Pak KY, Ng CK. Characterization of ^{18}F-dipicolylamine (DPA) derivatives in cells infected with influenza virus. Nucl Med Biol 2015 Mar;42(3):283-91. doi: 10.1016/j.nucmedbio.2014.11.012. PMID: 25537726

3. **Li J**, Chris Pak, Chin K. Ng. Radiolabeling and optimizing of zinc(II) dipicolylamine (DPA) with three 18F-prosthetic groups (18F-NFP, 18F-SFB and 18F-FET) as potential infectious imaging agents. Journal of Labelled Compounds and Radiopharmaceuticals 2012, Volume 55, Issue 4, Pages: 149–154. (DOI: 10.1002/jlcr.2911)).

Other selected peer-reviewed publications:

1. Hammond G, Xu B, Zeng X, Ng CK, **Li J**. (Radio)Fluoro-Click Reaction Enabled by a Hydrogen Bonding Cluster. . Angew Chem Int Ed Engl. 2018 Mar 5;57(11):2924-2928.
2. Gossman M, Zheng HY, Li J, Ng CK. A Study of Nuclear Medicine Contrast Retention in Vascular Access Port. Insights of Biomedical Res. 2017; 1(1): 17-22.
3. Gossman M, Zheng HY, Evans JG, **Li J**, Ng CK. Assessment of Radiopharmaceutical retention for vascular access port using Positron Emission Tomography imaging. J Appl Clin Med Phys 2017; 1-6.
4. Gossman M, Graham J, Depot S, Zheng HY, **Li J**, Ng CK, Tamez D. In vitro PET imaging of a miniature ventricular assist device. J Nucl Med Tech 2016; 44(3):190-194.
5. Tao Huang, A Cahid Civelek,Huaiyu Zheng,Chin K Ng,Xiaoxian Duan,**Junling Li,** Gregory C Postel, Baozhong Shen, and Xiao-Feng Li. ^{18}F-misonidazole PET imaging of hypoxia in micrometastases and macroscopic xenografts of human non-small cell lung cancer: a correlation with autoradiography and histological findings. Am J Nucl Med Mol Imaging. 2013; 3(2): 142–153. PMCID: PMC3601474
6. Lin Yingwu, Zhang Xiu Li, **Junling Li**. Preparation and radiolabeling of Antimony Sulfide Nanocolloids with two different particle sizes. Applied Radiat Isot 2003;58: 347-352.