

# Ke Lan

## CURRICULUM VITAE

(Jan. 2006)

### PERSONAL DATA

Name: Ke Lan    Sex: Male    Date of Birth: December 13,1971    Nationality: Chinese  
Present Address: University of Pennsylvania Department of Microbiology  
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Philadelphia, PA 19104, USA  
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### EDUCATION

- 1989-1994        Chongqing Medical University, Chongqing, China  
Obtained a Bachelor Degree of Clinical Medicine
- 1995-1998        Chongqing Medical University, Chongqing, China  
Specialty: Pathophysiology  
Obtained a Master Degree of Medical Science
- 1998- 2001        Central South University, Changsha, China  
Specialty: Molecular Oncology  
Obtained a Ph.D. degree of Medical Sciences

### EXPERIENCE AND RESEARCH WORKS

- 1994.8-1995.8    People's Hospital of Pingshan County, Sichuan, China  
Residency of internal medicine
- 1995.9-1998.7:    Chongqing Medical University, Experimental cancer research Lab  
As a graduate student, I mainly studied monoclonal antibody  
techniques, and obtained McAb against thrombopoietin (TPO).  
Supervisor: Prof. Fan Weike
- 1998.8-2001.7    Central South University, Xiang Ya medical School, Key Lab of  
Carcinogenesis of Chinese Ministry of Health.  
As a Ph.D. candidate and a key member of the group, I participated in  
the researches supported by the Key Project of National Natural Science  
Foundation. My researches focused on the role of EBV in NPC

Carcinogenesis and establishment of EBV-related transgenic mouse model.

Supervisor: Prof. Yao Kaitai (Academician of Chinese Academy of Science)

- 2001.8-2002.6 Researcher, Shenzhen Yishengtang Biological Co. Ltd, Beijing  
Institute of Radiation Medicine.  
Major research work: construction of bio-chip for genotyping HLA B Locus
- 2002.6-2002.8 Postdoc fellow, University of Michigan Cancer Center.  
With Dr. Erle S. Robertson
- 2002.8-present Postdoc fellow, University of Pennsylvania, Department of Microbiology.  
Project: Molecular mechanism of KSHV carcinogenesis  
With Dr. Erle S Robertson

## COMPLETED PUBLICATIONS IN SCIENTIFIC JOURNALS

### IN CHINESE

1. Huang Xin, **Lan Ke**, Fan Weike, et al. Preparation and characterization of McAb to rhGM-CSF-IL-3. Acta Universitatis Scientiae Medicinae Chongqing 1998;23(3):217
2. **Lan Ke**, Fan Weike, et al. Experimental study on WST-1 assay used for anticancer drug screening. Acta Universitatis Scientiae Medicinae Chongqing 1998;23(3):225
3. **Lan Ke**, Fan Weike, et al. Preparation and characterization of McAb to thrombopoietin. This is the thesis for master degree. \*
4. Gan Runliang, **Lan Ke**, Yao Kaitai. Establishment of human lymphoma model induced with Epstein-Barr virus in Scid mice. Chinese Journal of Pathology, in press
5. Xie Lu, **Lan Ke**, et al. Identification of Differentially Expressed Genes in nasopharyngeal Carcinoma by means of Atlas™ Human Cancer cDNA Expression Array. J Cancer Res Clin Oncol. 2000 Jul;126(7):400-6
6. Lu Xie, **Ke Lan**, Zhiwei He and Kaitai Yao. Differential expression profiles of cytokine/growth factor genes of nasopharyngeal cancer and normal nasopharyngeal tissue by cDNA expression array. International Conference on Immunology. October 23-26, 1999 Shanghai, China. Page 13015.
7. Lu Xie, **Ke Lan**, Zhiwei He and Kaitai Yao. Differential expression profiles of cytokine/growth factor genes of nasopharyngeal cancer and normal nasopharyngeal

tissue by cDNA expression array. Chinese Journal of Immunology 2000;16(7):31

8. He ZW, **Lan K**, et al. Study of the gene expression in human Nasopharynx tissues development. ACTA. Biochem. Biophys. 1999, 31(6):711-714
9. **Lan Ke**, Fan Weike, et al. Research progress of thrombopoietin. Acta Universitatis Scientiae Medicinae Chongqing 1998;23(2):196
10. **Lan Ke**, Fan Weike, et al. Signal transduction pathway of thrombopoietin. Clinical Biochemistry Section of Foreign Medicine 2000(3):57.
11. **Lan Ke**, et al. Two hybrid system and its application. (review). Clinical Biochemistry Section of Foreign Medicine 2001(5):218
12. **Lan Ke**, et al. Research progress of EBV BNLF-1 gene. Life Science 2001(1):22.
13. **Lan Ke**, Yao Kaitai, et al. Establishment a NPC cell line stably expressing NPC derived LMP1. Chinese Journal of Pathophysiology 2001(2):97.
14. **Lan Ke**, Yao Kaitai, et al. Comparison of tumorigenicity of two LMP1 isolates. Chinese Journal of Cancer 2001(10):1033
15. Ren Caiping, **Lan Ke**. Detection of EBV infection in CR2-transfected mouse cells using In-Situ Hybridization and Electromicroscopy. Journal of virology 2001;17(1):1
16. Ren Caiping, **Lan Ke**. Infection of mutated mouse complement receptor type II by Epstein-Barr Virus (EBV). Bulletin of Hunan Medical University 2001;(4):56
17. Zhang L, **Lan K**, and Yao K. Construction of N-LMP1 transgenic mice with the specific regulation region in nasopharynx. Chinese Journal of Biochemistry and Biophysics 2003 Dec;35(12):1072-6
18. **Lan Ke**, et al. Preparation of transgenic mice carrying NPC-derived LMP1 gene. Progress on veterinary sciences 2002(1):69
19. **Lan Ke**, et al. Atypical hyperplasia of nasopharyngeal epithelium was induced in NPC-derived LMP1 transgenic mouse. Progress on veterinary sciences 2002(5):46
20. **Lan K**, et al. Preliminary study on HLA-B genotyping by oligonucleotide chips. Chinese Journal of Hematology 2003 Apr;11(2):174-8.
21. Lu LC, **Lan K**, et al. Establishment of transgenic mouse models carrying human polymeric immunoglobulin receptor gene. Bulletin of First Military Medical University 2003 Feb;23(2):127-9

## IN ENGLISH

22. Knight JS, **Lan K**, Subramanian C, and Robertson ES. Epstein Barr Virus Nuclear Antigen 3C Recruits Histone Deacetylase Activity and Associates with the Corepressors mSin3A and NCoR in Human B-Cell Lines. *Journal of Virology*. 77: 4261-4272, 2003 April.
23. **Ke Lan**, Daniel A. Kupperts, Subhash C. Verma, and Erle S. Robertson. Kaposi's Sarcoma-Associated Herpesvirus-Encoded Latency-Associated Nuclear Antigen Inhibits Lytic Replication by Targeting Rta: a Potential Mechanism for Virus-Mediated Control of Latency. *Journal of Virology*. 78: 6585-6594, 2004 June
24. Murakami M, **Lan K**, Subramanian C and Robertson ES. Inhibition of cell migration by Nm23-H1 is suppressed by Epstein-Barr virus Nuclear Antigen 1 and forms a complex in immortalized B-lymphoblastoid cell lines. *Journal of Virology* 2005 Feb;79(3):1559-68.
25. **Lan K**, Kupperts D, and Robertson ES. KSHV Reactivation is Regulated by Interaction of LANA with RBP-J $\kappa$ , the Major Downstream Effector of the Notch Signaling Pathway. *Journal of Virology* 2005 Mar;79(6):3468-78
26. **Lan K**, Kupperts D, and Robertson ES. Induction of KSHV Latency Associated Nuclear Antigen by the Lytic Transactivator RTA: A Novel Mechanism for Establishment of Latency. *Journal of Virology* 2005 June, 79(12):7453-65
27. Kupperts D, **Lan K**, and Robertson ES. Regulation of MMP-9 Expression by Epstein-Barr Virus Nuclear Antigen 3C and the Suppressor of Metastasis Nm23-H1. *Journal of Virology*, 2005 Aug;79(15):9714-24.
28. Tathagata Choudhuri, Subhash C Verma, **Ke Lan**, and Erle S. Robertson Modulation of Alpha V integrin Expression by the Epstein-Barr Virus Nuclear Antigen 3C and the Metastasis Suppressor Nm23-H1 interaction with GATA1. Submitted to *Journal of Virology*.
29. Subhash C. Verma, **Ke Lan** and Erle S. Robertson Autonomous Replication of a KSHV cis-acting DNA Element: A novel mechanism for viral DNA replication. Submitted to *Mol Cell*. Under review.
30. **Ke Lan**, Daniel A. Kupperts, Tathagata Choudhuri, Masanao Murakami and Erle S. Robertson. KSHV Mediated Oncogenesis Is Associated with Accumulation of Activated Intracellular Notch1 in the Infected cell. Submitted to *PNAS*. Under review.
31. **Ke Lan**, and Erle Robertson. The Role of LANA in Stability of Intracellular Domain Of Notch. Manuscript under preparation.

32. **Ke Lan** and Erle Robertson. Gamma secretase inhibitor blocks Notch activation and Reduces Proliferation in Gammaherpesvirus Infected B Lymphoma Cells. Manuscript Under preparation.
33. Rajeev Kaul, Subhash Verma, Masanao Murakami, **Ke Lan**, Tathagata Choudhuri, Erle S Robertson. Epstein-Barr Virus protein can upregulate Cyclooxygenase-2 Expression through Association with the Suppressor of Metastasis Nm23-H1. Journal of Virology 2006 Feb;80(3):1321-31.
34. **Lan K**, Murakami M, Choudhuri T, Kuppers D and Robertson E. Intracellular Activated Notch1 Can Reactivate KSHV from Latency. Submitted to Virology.
35. Knight J, **Lan K**, Bajaj B, Sharma N, Tsai D and Robertson E. An EBNA3C Peptide Inhibits B-cell Transformation by Epstein-Barr Virus: Implications for Rational EBV Therapeutics. Submitted to Virology.
36. Verma S, **Lan K**, Choudhuri T, Bajaj B and Robertson E. KSHV encoded LANA modulates K1 expression through its cis-acting elements within the terminal repeats. Journal of Virology 2006; April, in press.
37. Bajaj B, Verma S, **Lan K**, Cotter M, Woodman Z and Robertson E. KSHV LANA mediated transcriptional upregulation of Pim-1 kinase can contribute to cell survival and proliferation. Virology 2006; April, in press.

## **BOOK CHAPTER**

1. Knight JS, Verma CS, **Lan K**, and Robertson ES. Molecular Genetics of Herpesviruses: A Recombinant Technology Approach. Methods in Molecular Biology: DNA Viruses. The Humana Press Inc. Methods Mol Biol. 2005;292:333-52.
2. Verma SC, **Lan K**, Woodman ZL, and Robertson ES. Development in Understanding the Mechanism of Tumorigenesis Mediated by Kaposi's Sarcoma Associated Herpesvirus. The NOVA Publisher. Progress in Virus Research. In press.
3. Verma SC, **Lan K**, and Robertson ES. Structure and Function of Latency Associated Nuclear Antigen (LANA). Springer-Verlag. Kaposi's Sarcoma Herpesvirus. In press.
4. **Lan K**, Verma SC, and Robertson ES. Epstein-Barr Virus: Infection, Propagation, Quantitation and Storage. Current Protocol in Microbiology, In press.

## **SCIENTIFIC ABSTRACTS, POSTERS, AND PRESENTATIONS**

1. Ke Lan and Erle S. Robertson. Construction of a KSHV-GFP Recombinant Virus and the Development of a System to Assess Gene functions of KSHV. The Eunice and Irving Leopold Annual Scientific Symposium and Retreat. Abramson Cancer Center of the University of Pennsylvania. Poster session. April 2003.

2. Ke Lan. KSHV Genetical Analysis: Construction of a KSHV-GFP Recombinant Virus and the Development of a System to Assess Gene functions of KSHV. University of Pennsylvania, Virology Seminar, Oral Presentation. April 2003
3. Ke Lan and Erle S. Robertson. Kaposi's Sarcoma Associated herpesvirus(KSHV): Construction of a KSHV-GFP Recombinant Virus and the Development of a system to Assess Gene Functions of KSHV. 28<sup>th</sup> International Herpesvirus Workshop, poster session, July 2003
4. Ke Lan and Erle S. Robertson. Kaposi's Sarcoma Associated Herpesvirus Encoded Latency Associated Nuclear Antigen Inhibits Lytic replication by Targeting Rta: A Potential Mechanism for Viral Mediated Control of Latency. The Eunice and Irving Leopold Annual Scientific Symposium and Retreat. Abramson Cancer Center of the University of Pennsylvania. Poster session. March 2003.
5. Ke Lan. KSHV LANA interacts with RTA: a potential mechanism for maintenance of viral latent infection. University of Pennsylvania, Tumor Virology Program, Oral Presentation, April 2004
6. Ke Lan. KSHV Reactivation is Regulated by Interaction of LANA with RBP-J $\kappa$ , the Major Downstream Effector of the Notch Signaling Pathway. University of Pennsylvania, Tumor Virology Program, Oral Presentation, April 2005
7. Ke Lan and Erle S. Robertson. Induction of KSHV Latency Associated Nuclear Antigen by the Lytic Transactivator RTA: A Novel Mechanism for Establishment of Latency. The Eunice and Irving Leopold Annual Scientific Symposium and Retreat. Abramson Cancer Center of the University of Pennsylvania. Poster session. April 2005
8. Ke Lan. Regulatory mechanism of KSHV latency. University of Pennsylvania, Virology Seminar, Oral Presentation. Dec. 6 2005.
9. Ke Lan. Intracellular Activated Notch1 Is Essential for Proliferation of KSHV Associated B Lymphoma Cells. Tumor Virology Program, oral presentation. Jan. 27, 2006.

## **SKILLS/TECHNIQUES**

1. Pathological technique: HE staining, Immunohistochemistry, in situ hybridization(ISH)
2. Experimental oncology: EBV-induced tumor in scid mouse\*, tumor transplantation in nude mouse\*, immunological therapy of cancers
3. Molecular biology: Isolation and purification of DNA and RNA\*, PCR technique\*, probe labeling\*, Southern and Northern blot\*, DNA recombination\* gene transfection\*, micro-array, transgenic mice techniques, micro-injection techniques\*
4. Cellular biology: Tissue and cell culture\*, cell transformation, lymphocyte separation
5. Immunologic and biochemical techniques: Preparation and purification of monoclonal antibody\*, ELISA\*, immunoprecipitation, immunocytochemistry\*, Western blot\*,

electrophoresis, radionuclide label, enzyme cytochemistry

## **HONORS AND AWARDS**

1. Winner, Award for distinguished Ph.D. thesis, 2001, Central South University (CSU).
2. Winner, Golden Prize, Federal Award of Medical Education, 1999, Central South University (CSU).
3. Winner, Best Poster Award for The Eunice and Irving Leopold Annual Scientific Symposium and Retreat. 2005, Abramson Cancer Center of the University of Pennsylvania. Poster session.
4. Winner, Special Fellow Award. 2006, Funded with \$180,000 for 3-year stipend by American Leukemia & Lymphoma Society.

## **PROFESSIONAL SOCIETY**

Since 2005, Full Membership, American Society of Microbiology.