Curriculum Vitae

R. Krishna Murthy Karuturi, PhD
Director, Computational Sciences
The Jackson Laboratory, USA

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Summary

- *Research Interests*: Statistical bioinformatics, computational biology and predictive genomic medicine.

- *Education and Experience:* PhD in computer science and >15 years of post-doctoral research, collaborative and managerial experience in statistical bioinformatics, computational biology and predictive genomic medicine. Significant experience and impact in machine learning and information filtering. Expertise in bioinformatics and statistics relevant software packages.

- *Research Leadership:* 70 peer-reviewed and invited publications, member of editorial boards and program committees of international journals and conferences, and invited presentations at international workshops and conferences. Obtained multiple grants funded as a co-investigator or a collaborator in USA and Singapore. >6300 citations, h-index=26 and i10-index=38 (https://scholar.google.com/citations?user=5X7hVbsAAAAJ&hl=en); ~400 impact points (https://www.researchgate.net/profile/RK_Murthy_Karuturi).

- *Supervision & Mentoring:* I have mentored and supervised 45 bioinformatics analysts, scientists and engineers including PhD students as well as post-doctoral fellows/scientists, and 25 MS/BS project students with varying backgrounds in bioinformatics, statistics, engineering and biology.

Professional Experience

Oct'2012-*till date*   **Director, Computational Sciences**
                                    The Jackson Laboratory, USA

As Director of Computational Sciences, I manage and guide research, collaborative and administrative operations of the Computational Sciences department at The Jackson Laboratory. Computational Sciences' research and collaborations span entire spectrum of Bioinformatics and Computational Biology relevant to both fundamental and translational biomedical research carried out across three campuses of The Jackson Laboratory. It consists of 30 staff including 16 doctoral (PhD) scientists and software engineers operating on two campuses of The Jackson Laboratory (Maine and Connecticut). Specific recent achievements

are:

- Developed quasi-academic collaborative R&D program for Computational Sciences.
- Contributed to multiple successful research grant applications and publications
- Defined and implemented strategy for structure, staffing and recruitment, and finance model for Computational Sciences.
- Successfully recruited and integrated 15 doctoral (PhD) scientists and software engineers.
- Defined and managed multi-site research and collaborations of CS.
- Directed cross functional collaborative R&D conducted by computational sciences group across various disease biology domains, business units and partnerships.
- Overseen the team to successful delivery of all aspects of Clinical Genome Informatics towards CLIA within 6months and CAP certification in the next 1year.
- Overseen the team to successful delivery of all aspects of PDX Informatics at JAX including key role in *In Vivo services*.
- Successfully co-organized JAX-UConn/BCAT/UCHC Joint Workshop on Bioinformatics and Computational Biology at UConn-Storrs.
- Mentored students of varying background education in genomics and informatics

Jan'2004-Sep'2012   Senior Research Scientist & Principal Investigator
Computational & Systems Biology
Genome Institute of Singapore, Singapore
Jan'2003-Dec'2003   Research Scientist
Computational & Systems Biology
Genome Institute of Singapore, Singapore

As a Scientist & PI at the Genome Institute of Singapore, I have successfully established multitude of research collaborations throughout the institute and other research entities in Singapore. The specific accomplishments are

- Developed lab of Predictive Biology
- ~60 research publications and patents filed
- Supervised and mentored 11 bioinformatics staff including 2 PhD students and 25+ project students
- Established collaborations with many institutions and universities in Singapore and India.

Education

2002-2002   Post-Doctoral Fellow,
                Genome Institute of Singapore, Singapore.

2001-2002   Research Fellow, School of Computing

National University of Singapore, Singapore

1995-2001   PhD (*Computer Science & Automation)*
             Indian Institute of Science, Bangalore, India

1993-1995   ME (*Systems Science & Automation)*
             Indian Institute of Science, Bangalore, India

1990-1993   BE (*Electronics & Communication Engg.*)
             Osmania University, Hyderabad, India

1986-1990   SDE (*Industrial Electronics & Instrumentation Engg.*)
             Govt Institute of Electronics, Secunderabad, India

Invited Podium Presentations

- *MultiDCoX: Multi Factor Differential Co-expression Analysis*, **ICCABS,** Oct'2016, Atlanta, GA, USA.

- *TriaGE driven integrative meta-analysis of regional expression dysregulation in cancers*, **Intl Conf & Exhibition on Proteomics & Bioinformatics**, Jun'2011, Hyderabad, India.

- *Models for DNA Replication and Origin Firing Efficiency*, **Statistical Genomics Workshop on Gene Mapping and Genomic Profiling**, Jun'2009, Singapore.

- *TRIAGE: Triangulating oncogenes through clinic genomic intersects*, **34th Annual Conf of the Indian Society of Human Genetics (ISHG)**, March'2009, New Delhi, India.

- *Flexible-Time Firing Origin Model for DNA Replication*, **Asia-Pacific Regional S.pombe Meeting**, Jul'2008, Singapore.

- *Unsupervised determination of gene significance in time-course microarray data*, workshop on **Statistical Methods in Microarray Analysis**, Jan'2004, Singapore

- *Exploiting synteny in genome-by-genome ortholog pairing*, workshop on **Post Genome Knowledge Discovery**, Jan-Jun'2002, Singapore.

Patents

- 2010; PCT/SG2010/000079; *A method for the systematic evaluation of the prognostic properties of gene pairs for medical conditions and certain gene pairs identified*; Lance Miller and **R Krishna Murthy Karuturi** (Filed)

Grant Funding

NIAID   07/01/16-06/30/21
CFS
Role: Co-Investigator

P30 CA034196-29 Liu (PI)   07/01/14-06/30/19
NIH/NCI
Cancer Center Support (Core) Grant - Computational Sciences
Role: Director, Computational Sciences

R01 DK100692-01 Peters (PI)   09/16/13-09/15/15
NIH/NIDDK
Genetic Modifiers of Beta-like Globin Gene Switching
The goal of this project is to identify novel genes regulating beta-like globin gene switching.
Role: Co-Investigator

TJL-DIF-FY14-GRH-GWC Carter, Howell (PI)   05/01/14-04/30/16
The Jackson Laboratory Director's Innovation Fund
Maximizing Human and Mouse Resources to Identify Novel Variants for Alzheimer's Disease
Role: Co-Investigator

TJL-CCSG-Pilot-KDM01 Ruan, Karuturi, Mills. The Jackson Laboratory Cancer Center, 2012-2013 Pilot Feasibility Studies - CLL Genomic Sequencing. 12/01/12-06/30/13.
Role: Co-investigator

JAX Cancer Center Pilot: Question: To what extent do genomic instability mechanisms contribute to clonal heterogeneity in tumors, and how does this influence critical tumor phenotypes such as de novo or acquired therapy resistance. Kevin Mills,Lenny Shultz,Yijun Ruan, Krishna Karuturi, Wa Xian
Role: Co-investigator

JAX Cancer Center Pilot: Kevin Question: Is ovarian cancer actually a cancer of the fallopian tube?
Mills,Lenny Shultz,Yijun Ruan, Yusuke Yamamoto, Krishna Karuturi, Wa Xian, Frank McKeon
Role: Co-investigator

1 R25 EB022365-01 (Chuang)   09/30/2015 - 06/30/2018
NIH/NIBIB
Big Genomic Data Skills Training for Professors
Role: Collaborator

JAX-BIDMC Pilot Project: Vaccine elicited patient-specific T cell response in myeloma
Role: Co-investigator

CIRG12nov011 (Singapore): Isolation and molecular characterization of intracellular bacteria relevant for recurrent urinary tract infection. 2013-2016
Role: Collaborator

Heterogeneous Mining and Interpretation for Predictive Biology, Genome Institute of Singapore, 2005-08, 2008-10 and 2010-2012. (PI)

Academic Committees and Boards (Conferences and Journals)

2016-	Editorial Board	Cancer Informatics
2011-	Editorial Board	Frontiers in Cancer Genetics
2009-	Associate Editor	Intl. Jl. of Computational Bioscience

2016	Session Chair	ICCABS'2016, Atlanta, GA, USA
2013	Co-chair	JAX-Uconn Joint workshop on Bioinformatics & Computational Biology, USA
2011	Tutorials and Workshop Co-chair	ICISTM, Mar'2011, India
2007	Session Chair	ISBRA, May'2007, USA
2008	Program Chair	Special Session, PRIB, Oct'08, Australia
2008	Program Chair	ODGEA, May'2008, USA

2014	Program Committee	BIOKDD'14 (DEXA'14), September 2014, Germany
2014	Program Committee	PRIB'14, August'2014, Sweden
2013	Program Committee	CBIB & PRIB, June 2013, France
2013	Program Committee	ECTA, September 2013, Portugal
2013	Program Committee	BIOKDD'13 (DEXA'13), August 2013, Czech Republic
2012	Program Committee	ECTA, October 2012, Spain
2012	Program Committee	BIOKDD'12 (DEXA'12), September 2012, Austria
2011	Program Committee	PRIB, Nov'2011, Netherlands
2011	Program Committee	ICISTM, Mar'2011, India
2010	Technical Program Committee	ICEC, October'2010, Spain
2010	Program Committee	BMEI, Oct'2010, China
2010	Technical Program Committee	ICEC, Sep'2010, South Korea
2010	Program Committee	PRIB, Sep'2010, Netherlands
2010	Program Committee	CEC, July'2010, Spain,
2010	Program Committee	CompBio, Nov'2010, USA
2009	Program Committee	IC3, Aug'2009, India
2009	Program Committee	PRIB, Sep'2009, UK
2009	Program Committee	DMIN, Jul'2009, USA
2009	Program Committee	PAKDD, Apr'2009, Thailand
2009	Program Committee	CEC, May'2009, Norway
2009	Program Committee	ICEC, Oct'2009, Portugal
2009	Program Committee	InCoB, Sep'2009, Singapore
2008	Program Committee	PRIB, Oct'2008, Australia
2008	Technical Committee	IJCNN, Jun'2008, Hong Kong
2008	Technical Committee	CEC, Jun'2008, Hong Kong
2008	Program Committee	CBB, Nov'2008, USA
2008	Program Committee	DMIN, Jul'2008, USA
2007	Program Committee	ISITC, 2007, Korea
2007	Program Committee	DMIN, Jul'2007, USA

2007   Poster Committee   GIW, Dec'2007, Singapore
2006   Program Committee   CASB, Nov'2006, USA

Reviewer:

BMC Medicine, BMC Genomics, BMC Bioinformatics, etc

Other Achievements

2015   2nd Prize for the poster of my student Rebecca Newman at intercollegiate
Scientista Symposium.
2010   "Highly Accessed" publication in Algorithms for Molecular Biology
1993   2nd Rank, Graduate Aptitude Test in Engineering (GATE'93), India
1990   1st Rank, Engg. Common Entrance Test (ECET'90), Andhra Pradesh, India
1986-90 National Merit Scholarship, Govt of India.
1986-88 Telugu Vignana Paritoshakam, Govt of Andhra Pradesh, India

Complete List of Publications

Invited Publications

1. Juntao Li, Kwok Pui Choi, Yudi Pawitan and $R. Krishna Murthy Karuturi, *Statistical Significance Assessment for Biological Feature Selection: Methods and Issues*, **Handbook of Biological Knowledge Discovery**, eds. Elloumi and Zomaya, **Wiley Publishers**, 2013.

2. $*R. Krishna Murthy Karuturi, *Heterogeneity of Differential Expression in Cancer Studies: Algorithms and Methods*, **Algorithms in Computational Biology,** eds. Elloumi and Zomaya, **Wiley Publishers**, 2011.

3. Brian A. Joughin, Edwin C. Cheung, **R. Krishna Murthy Karuturi**, Julio Saez-Rodriguez, Douglas A. Lauffenburger, Edison T. Liu, *Cellular Regulatory Networks*, **Systems Biomedicine: Concepts and Perspectives**, eds. Edison T. Liu and Douglas A. Lauffenburger, **Academic Press**, 2009.

4. Siew Hong Lam, *R. Krishna Murthy Karuturi and Zhiyuan Gong, *Zebrafish Spotted-Microarray Data Analysis for Genome-wide Expression Profiling Experiments (Part II): Data Acquisition and Analysis*, **Methods in Molecular Biology**, 546:197-226, 2009

Peer Reviewed Publications

5. Nathan Lawler, Alec Fabbri, Peiyong Guan, Joshy George and $R. Krishna Murthy Karuturi, *multiClust: An R-package for identifying biologically relevant clusters in cancer transcriptome profiles*, **Cancer Informatics**, Jun 2016:15 103-114.

6. Francesca Menghi, Koichiro Inaki, XingYi Woo, Pooja A Kumar, Krzysztof R Grzeda, Ankit Malhotra, Vinod Yadav, Hyunsoo Kim, Eladio J Marquez, Duygu Ucar, Phung T Shreckengast, Joel P Wagner, George MacIntyre, **Krishna R Murthy Karuturi**, Ralph Scully, James Keck, Jeffrey H. Chuang, Edison T. Liu. *The Tandem Duplicator Phenotype as a distinct genomic configuration in cancer*. **PNAS**, 113(7), 2016.

7. Guruprasad Ananda, Susan Mockus, Micaela Lundquist, Vanessa Spotlow, Al Simons, Talia Mitchell, Grace Stafford, Vivek Philip, Timothy Stearns, Anuj Srivastava, Mary Barter, Lucy Rowe, Joan Malcolm, Carol Bult, **Radha Krishna Murthy Karuturi**, Karen Rasmussen and Douglas Hinerfeld, *Development and validation of the JAX Cancer Treatment Profile™ for detection of clinically actionable mutations in solid tumors,* **Experimental and Molecular Pathology**, 2015.

8. Sigrid Rouam, Lance D Miller, $R Krishna Murthy Karuturi, *Identifying Driver Genes in Cancer by Triangulating Gene Expression, Gene Location, and Survival Data*, **Cancer Informatics**, 2014.

9. Koichiro Inaki, Francesca Menghi, Xing Yi Woo, Joel P. Wagner, Pierre-Étienne Jacques, Yi Fang Lee, Phung Trang Shreckengast, Wendy WeiJia Soon, Ankit Malhotra, Audrey S.M. Teo, Axel M. Hillmer, Alexis Jiaying Khng, Xiaoan Ruan, Swee Hoe Ong, Denis Bertrand, Niranjan Nagarajan, **R. Krishna Murthy Karuturi**, Alfredo Hidalgo Miranda, and Edison T. Liu, *Systems consequences of amplicon formation in human breast cancer*, **Genome Res**. October 2014 24: 1559-1571

10. Jing Tan, Zhimei Li, Puay Leng Lee, Peiyong Guan, Mei Yee Aau, Shuet Theng Lee, Min Feng, Cheryl Zihui Lim, Eric Yong Jing Lee, Zhen Ning Wee, Yaw Chyn Lim, **R.K. Murthy Karuturi**, and Qiang Yu, PDK1 Signaling Toward PLK1–Myc Activation Confers Oncogenic Transformation and Tumor-Initiating Cell Activation and Resistance to mTOR-Targeted Therapy, **Cancer Discovery**, Oct 2013.

11. Zheng W1, Xu H, Lam SH, Luo H, **Karuturi RK**, Gong Z, *Transcriptomic analyses of sexual dimorphism of the zebrafish liver and the effect of sex hormones*, **PLoS One**. 2013;8(1):e53562. doi: 10.1371/journal.pone.0053562. Epub 2013 Jan 17.

12. Shuet Theng Lee, Min Feng, Yong Wei, Zhimei Li, Yuanyuan Qiao, Peiyong Guan, Meiyee Aau, Xia Jiang, Chew Hooi Wong, Kelly Huynh, Jinhua Wang, Juntao Li, **K. Murthy Karuturi**, Ern Yu Tan, Dave SB Hoon, Yibin Kang, Qiang Yu. Protein Tyrosine Phosphatase UBASH3B is Overexpressed in Triple-Negative Breast Cancer and Promotes Invasion and Metastasis. **Proc Natl Acad Sci USA**, 2013 2;110(27):11121-6.

13. Jeena Gupta, Juntao Li, **R. Krishna Murthy Karuturi** and Tikoo K, *Histone H3 lysine 4 monomethylation (H3K4me1) and H3 lysine 9 monomethylation (H3K9me1): distribution and their association in regulating gene expression under hyperglycaemic/hyperinsulinemic conditions in 3T3 cells*, **Biochimie**, 2012, 94(12):2656-64.

14. Jair Zhou, Haixia Rachel Li and $R. Krishna Murthy Karuturi, *Bias in Genome Scale Functional Analysis of Transcription Factors using Binding Site Data,* **Journal of Physical Chemistry & Biophysics**, S4:002, 2012.

15. Petra Kraus, Xing Xing, Siew Lan Lim, Max E Fun, V Sivakamasundari, Sook Peng Yap, Haixia Lee, **R. Krishna Murthy Karuturi** and Thomas Lufkin, *Mouse Strain Specific Gene Expression Differences for Illumina Microarray Expression Profiling in Embryos*, **BMC Research Notes**, 5:232, May'2012.

16. Juntao Li, Kwok Pui Choi and $R. Krishna Murthy Karuturi, *iPLR: Iterative Piecewise Linear Regression to accurately assess statistical significance in batch confounded differential expression analysis*, **ISBRA'12**, May'12, USA.

17. [$]Juntao Li, Lei Zhu, Eshaghi Majid, Jianhua Liu and **R. Krishna Murthy Karuturi**, *Deciphering DNA-protein interaction patterns from High-density ChIP-chip data*, **BMC Proceedings,** 5:S2, 2011.

18. Juntao Li, Paramita Puteri, Choi Kwok Pui and [$]**R. Krishna Murthy Karuturi**, *ConReg-R: Extrapolative recalibration of the empirical distribution of p-values to improve false discovery rate estimates*, **Biol Direct**, 6:27, 2011.

19. Jiang Xia, Lee Shuet Theng, **Karuturi R. Krishna Murthy** and YU Qiang, *FOXQ1 regulates epithelial-mesenchymal transition in human cancers*, **Cancer Research**, 71(8):3076-86, 2011.

20. Siew Hong Lam, Serene G. P Lee, Chin Yo Lin, Jane S Thomsen, Pan You Fu, **Karuturi R K Murthy**, Haixia Li, Kunde R Govindarajan, Lin Chin Ho Nick, Guillaume Bourque, Zhiyuan Gong, Thomas Lufkin, Edison T Liu and Sinnakaruppan Mathavan, *Molecular conservation of estrogen-response associated with cell cycle regulation, hormonal carcinogenesis and cancer in zebrafish and human cancer cell lines*, **BMC Medical Genomics,** 4:41, 2011.

21. Koichiro Inaki, Axel Hillmer, Leena Ukil, Fei Yao, Xing Yi Woo, Leah Vardy, Kelson Folkvard Braaten Zawack, Charlie Wah Heng Lee, Pramila Nuwantha Ariyaratne, Yang Sun Chan, Kartiki Vasant Desail, Jonas Bergh, Per Hall, Thomas Choudary Putti, Wai Loon Ong, Atif Shahab, Valere Cacheux-Rataboul, **R. Krishna Murthy Karuturi**, Wing-Kin Sung, Xiaoan Ruan, Guillaume Borque, Yijun Ruan, Edison T. Liu, *Transcriptional Consequences of Genomic Structural Aberrations in Breast Cancer*, **Genome Research,** 21: 676-687, 2011.

22. Lee ST, Li Z, Wu Z, Aau M, Guan P, **Karuturi RK**, Liou YC, Yu Q *Context-Specific Regulation of NF-κB Target Gene Expression by EZH2 in Breast Cancers.* **Mol Cell**, 43(5):798-810, 2011.

23. Haixia Li and [$]**R. Krishna Murthy Karuturi**, *Significance Analysis and Improved Discovery of Disease Specific Differentially Co-expressed Gene Sets in Microarray Data*, **Intl Jl of Datamining and Bioinformatics**, 4(6):617-638, 2010.

24. Majid Eshaghi, Lei Zhu, Juntao Li, Chee Seng Chan, Zhaoqing Chu, Atif Shahab, **R. Krishna Murthy Karuturi** and Jianhua Liu, *Deconvolution of ChIP-chip MBF occupancies reveals the temporal recruitment of Rep2 at the MBF-target genes*, **Eukaryotic Cell**, Nov, 2010.

25. Majid Eshaghi, Jong Hoon Lee, Lei Zhu, Suk Yean Poon, Juntao Li, Kwang-Hyun Cho, Zhaoqing Chu, **R. Krishna Murthy Karuturi** and Jianhua Liu, *Genomic Binding Profiling of the Fission Yeast Stress-activated MAPK Sty1 and the bZIP Transcriptional Activator Atf1 in Response to H2O2*, **PLoS One**, 5(7):e11620, 2010.

26. Hui CKB and [$]**R Krishna Murthy Karuturi,** *Differential co-expression framework to quantify goodness of biclusters and compare biclustering algorithms, **Algorithms Mol Biol,** 5(1):23, 2010. Highly accessed

27. Luo H, Li J, Eshaghi M, Liu J, $**Karuturi RKM** *Genome-wide estimation of firing efficiencies of origins of DNA replication from time-course copy number variation data*, **BMC Bioinformatics,** 11(1):247, 2010.

28. Juntao Li, Lei Zhu, Eshaghi Majid, Jianhua Liu and $**R. Krishna Murthy Karuturi**, *Deciphering DNA-protein interaction patterns from High-density ChIP-chip data*, in the proc of Intl Symposium on Bioinformatics Research and Applications (**ISBRA'2010**).

29. Fullwood MJ, Liu MH, Pan YF, Liu J, Xu H, Mohamed YB, Orlov YL, Velkov S, Ho A, Mei PH, Chew EG, Huang PY, Welboren WJ, Han Y, Ooi HS, Ariyaratne PN, Vega VB, Luo Y, Tan PY, Choy PY, Wansa KD, Zhao B, Lim KS, Leow SC, Yow JS, Joseph R, Li H, Desai KV, Thomsen JS, Lee YK, **Karuturi RK**, Herve T, Bourque G, Stunnenberg HG, Ruan X, Cacheux-Rataboul V, Sung WK, Liu ET, Wei CL, Cheung E, Ruan Y., *An oestrogen-receptor-alpha-bound human chromatin interactome*, **Nature**, 462(7269):58-64, 2009.

30. Jinqiu Zhang, Xuejing Liu, Arpita Datta, KR Govindarajan, Wai Leong Tam, Joshy George, Edison T. Liu, **R. Krishna Murthy Karuturi**, Bing Lim and Lance D. Miller, *RCP is a human breast cancer–promoting gene with Ras-activating function*, **The Jl of Clinical Investigations,** **119**(8):2171-2183, 2009.

31. Xiaojing Yang, **R.K. Murthy Karuturi**, Feng Sun, Meiyee Aau, Kun Yu, Rongguang Shao, Lance D. Miller, Patrick Boon Ooi Tan and Qiang Yu, *CDKN1C (p57KIP2) Is a Direct Target of EZH2 and Suppressed by Multiple Epigenetic Mechanisms in Breast Cancer Cells*, **PLoS ONE** *4(4) : e5011,* 2009.

32. Stanley K.L. Ng, Yann-Wan Yap, **R. Krishna Murthy Karuturi**, Evelyn S.L. Loh, Kui-Hin Liau, Ee-Chee Ren, Soek-Ying Neo, *Ablation of Phosphoinositide-3-kinase Class II Alpha Suppresses Hepatoma Cell Proliferation*, **Biochemical and Biophysical Research Communications**, 387(2):310-5. Epub 2009 Jul 8.

33. Juntao Li, Fajrian Yunus, Zhu Lei, Majid Eshaghi, Jianhua Liu and $**R Krishna Murthy Karuturi**, *Modeling and Visualizing Heterogeneity of Spatial Patterns of Protein-DNA Interaction from Hi-density Chromatin Precipitation Mapping Data*, Intl Symposium on Bioinformatics Research and Applications (**ISBRA'09**), May 2009, USA.

34. Chatterjee S, Min L, **Karuturi RK** and Lufkin T, *The role of post-transcriptional RNA processing and plasmid vector sequences on transient transgene expression in zebrafish*, **Transgenic Res.** doi:10.1007/s11248-009-9312-x [Epub ahead of print], 2009.

35. Siew Hong Lam, Sinnakarupan Mathavan, Yan Tong, Wen San Lim, Haixia Li, Karuturi **R. Krishna Murthy**, Yilian Wu, Jing Hu, Xiaoming Xu, Vinsensius B. Vega, Edison T. Liu and Zhiyuan Gong, *Zebrafish Whole-Organism Toxicogenomics for Large-Scale Predictive Toxicology and Discovery of Novel Biomarkers in Targeted Tissues*, **PLoS Genetics**, 4(7): e1000121 doi:10.1371/journal.pgen.1000121, 2008.

36. Christina Teh, Rory Johnson, Galih Kunarso, Kee Yew Wong, Gopalan Srinivasan, Megan Cooper, Manuela Volta, Sarah Chan, Leonard Lipovich, Steve Pollard, **R. Krishna Murthy Karuturi**, Chia-lin Wei, Noel Buckley and Lawrence Stanton, *REST regulates distinct transcriptional networks in embryonic stem cells and neuronal progenitors*, **PLoS Biology**, 6 (10):e256 doi:10.1371/journal.pbio.0060256, 2008.

37. Siew Hoon Sim, Yiting Yu, Chi Ho Lin, **R. Krishna M. Karuturi**, Hui Hoon Chua, Mongkol Vesaratchavest, Catherine Ong, Sivalingam Suppiah, GladysTan, Lynn Tang, Gary Lau, Eng Eong Ooi, Sharon J. Peacock, and Patrick Tan, *The Core and Accessory Genomes of Burkholderia pseudomallei: Implications for Human Melioidosis*, **PLoS Pathogens**, 4(10): e1000178 doi:10.1371/journal.ppat.1000178,Oct'2008.

38. Juntao Li, Majid Eshaghi, Jianhua Liu and $^{\$}$**R. Krishna Murthy Karuturi**, *Near-Sigmoid Modeling to simultaneously profile Genome-wide DNA replication timing and Efficiency in Single DNA replication microarray studies*, in the proc. of **APBC'08**, Japan.

39. Juntao Li, Jianhua Liu and $^{\$}$**R Krishna Murthy Karuturi,** *Stepped Linear Regression to Accurately Assess Statistical Significance in Batch Confounded Differential Expression Analysis*, in the LNCS of the 1st Intl workshop on **ODGEA'08-ISBRA'08**, May6-9, Atlanta, USA.

40. Huaien Luo, and $^{\$}$**R. Krishna Murthy Karuturi**, *Weighted Top Score Pair Method for Gene Selection and Classification*, in the LNBI of Pattern Recognition in Bioinformatics (**PRIB'08**), Oct'2008, Melbourne, Australia.

41. Jing Tan, Xiaojing Yang, Li Zhuang, Xia Jiang, Wei Chen, **RK Murthy Karuturi**, Patrick Boon Ooi Tan, Edison T. Liu and Qiang Yu, *Pharmacologic disruption of polycomb repressive complex 2-mediated gene repression selectively induces apoptosis in cancer cells*, **Genes & Development**, May 2007, 21: 1050 - 1063.

42. Zhaoqing Chu, Juntao Li, Majid Eshaghi, Xu Peng, Ke Ding, **R. Krishna Murthy Karuturi**, and Jian Hua Liu, *Modulation of Cell Cycle-specific Gene Expressions at the Onset of S-phase Arrest Contributes to the Robust DNA Replication Checkpoint Response in Fission Yeast*, **Mol. Biol. of the Cell**, 18:1756-1767, 2007.

43. Majid Eshaghi, *****R. Krishna M. Karuturi**, Juntao Li, Zhaoqing Chu, Edison T. Liu and Jianhua Liu, *Global profiling of DNA replication timing and efficiency reveals that efficient replication/firing occurs late during S-phase in S. pombe*, **PLoS ONE**, 2(8):e722.doi:10.1371/journal.pone.0000722, 2007.

44. Zhaoqing Chu, Juntao Li, **Krishna Murthy Karuturi**, Kui Lin, and Jianhua Liu, *Adaptive Expression Responses in the Pol-gamma Null Strain Depleted of Mitochondrial Genome in S. pombe*, **BMC Genomics**, 8:323, 2007.

45. Juntao Li, Jianhua Liu and $^{\$}$**R. Krishna Murthy Karuturi**, *Data-driven Smoothness Enhanced Variance Ratio Test to Unearth Responsive Genes in Unreplicated 0-time*

Normalized Time-course Microarray Studies, in the proc of Intl Symposium on Bioinformatics Research and Applications (***ISBRA'07***), USA, May7-10, 2007.

46. ***R. Krishna Murthy Karuturi**, Dinoth S. Bangarusamy, Edison T. Liu and Lance D. Miller, *Local Singular Value Decomposition to Identify Genomic Amplifications from Massive Gene Expression Data*, in the poster proc. of ***GIW'07***, Singapore. (Oral Presented).

47. Jing Tan, Li Zhuang, Xia Jiang, Karuturi **R. Krishna Murthy** and Qiang Yu, *Apoptosis signal-regulating kinase 1 is a direct target of E2F1 and contributes to histone deacetylase inhibitor-induced apoptosis through positive feedback regulation of E2F1 apoptotic activity*, ***Journal of Biological Chemistry***, 281(15):10508-10515, April 14, 2006.

48. Siew Hong Lam, Yi Lian Wu, Vinsensius B Vega, Lance D Miller, Jan Spitsbergen, Yan Tong, Huiqing Zhan, Kunde R Govindarajan, Serene Lee, Sinnakarupan Mathavan, **Karuturi R. Krishna Murthy**, Donald R Buhler, Edison T Liu & Zhiyuan Gong, *Conservation of Gene Expression Signatures Between Zebrafish and Human Liver Tumors and Tumor Progression*, ***Nature Biotechnology***, 24(1):73-75,2006.

49. Li Haixia and $^\$$**R. Krishna Murthy Karuturi**, *Significance Analysis and Improved Discovery of Differentially Co-expressed Gene Sets in Microarray Data*, in the proc. of IEEE ICDM 2006 Workshop on Data Mining in Bioinformatics (***ICDM-DMB 2006***), Hong Kong, Dec 2006.

50. Fiona Rodrigues, Mitali Sarkar-Tyson, Sarah Harding, Sim Siew Hoon, Chua Hui Hoon, Chen Wei, Xu Han, **R. Krishna Murthy Karuturi**, Ken Sung, Yu Kun, Timothy Atkins, Richard Titball, and Patrick Tan, *Global Map of Growth-Regulated Gene Expression in Burkholderia pseudomallei, the Causative Agent of Melioidosis*, ***J. Bacteriology***, 188(23), December 2006.

51. ***Karuturi R. Krishna Murthy**, Silvia Wong and Wing-Kin Sung and Lance Miller, *Differential Friendly Neighbors Algorithm for Differential Relationship Based Gene Selection and Classification using Microarray Data*, in the proc. of The 2006 Intl Conf on Data Mining (***DMIN'2006***), USA, Jun 2006.

52. Xu Peng, ***R. Krishna Murthy Karuturi**, Miller D Lance, Lin Kui, Jia Yonghui, Pinar Kondu, Long Wang, Limsoon Wong, Liu Tak-Bun Edison, Mohan Balasubramanian and Liu Jian-Hua, *Identification of cell cycle-regulated genes in fission yeast*, ***Molecular Biology of the Cell***, 16(3):1026-1042, 2005.

53. Yudi Pawitan, **Karuturi R. Krishna Murthy** and Alexander Ploner, *Bias In the Estimation of False Discovery Rate and Sensitivity of Microarray Studies*, ***Bioinformatics***, 21(20):3865-3872, 2005.

54. Sinnakaruppan Mathavan, Serene G.P. Lee, Lance D. Miller, Michael Richardson, **Karuturi R. Krishna Murthy**, Kunde R. Govindarajan, Zhiyuan Gong, Yan Tong, Yi Lian Wu, Siew Hong Lam, Henry Yang, Svitlana Korzh, Yijun Ruan, Valdamir Korzh, Edison T. Liu and Thomas Lufkin, *Transcriptome analysis of zebrafish*

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