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Key words

Genomics, transcriptomics, NGS, Cancer panels, cardiovascular diseases, AGTRs, GPCRs, fungal enzymes, Business analysis, R/BioC.

Key skills

Genomics (translational and clinical), Transcriptomics (3' IVT, exon and microRNA), NGS pipeline development, Product development, Business analysis.

Experience

Oct, 2014-	Senior Scientist and Consultant director, Bioinformatics, Genecllick Biotech private limited, Hyderabad. Senior Scientist and Consultant, Virtue biologics, Hyderabad I work as senior scientist and consultant director for bioinformatics division for two start ups based in Hyderabad, Telangana. I assist in setting up infrastructure for bioinformatic analysis of NGS and Microarray data, scientific communications with corporate clients and policy implementation. I am involved in conducting workshops/ training programs on R/bioconductor for biologists.
June, 2013- Sep, 2014	Scientist II (functional lead), Genome Lifesciences, Chennai, India (Parent company: Genome International Corporation, WI,US) I worked as senior scientist cum functional lead for NGS clinical data analysis services and product development. Responsibilities involved NGS clinical data analysis for international clients, implementation of NGS data analysis pipelines for WES, WGS and RNA-seq, implementation of GATK best practices work flows, clinical annotation and classification of variants
July, 2011- May, 2013	Bioinformatics analyst II, SemanticBits India pvt Ltd, Hyderabad, AP (Parent company: Semanticbits, Herndon, US) I worked as bioinformatics analyst for Clinical genomicist workstation™, now marketed by PierianDx, US. Responsibilities included bioinformatic analysis and clinical annotation of human genomic variants for comprehensive cancer and EOAD panels using NGS clinical data. Reporting clinically significant variants for single, Tumor Vs normal, pedigree and Trios specimens as per HL-7 clinical genomics standards. I am also involved in business analysis of product development including functional requirement collection, documentation, functional testing and test cycle management.
Aug, 2008- June, 2010	Sr. scientist II (bioinformatics), Strand Lifesciences pvt Ltd, Bangalore, KA I worked as senior scientist in implementing Affymetrix™ exon and SNP chip data analysis workflows for transcriptomic and genomic studies. I implemented genotyping algorithms, BRLMM, Segmentation algorithms

	such as GISTIC, CBS in GenespringGX collaborating with developer team. Research activities involved omics data analysis from multiple cancer studies from GEO and EXPO
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Products	Genome explorer™ & IGR™, GLC-GIC, Chennai, India Clinical genomicist work station™, SB, Hyderabad Genespring Gx™, Mass profiler Pro™, SLS, Bangalore
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Research experience

2005-2008	Post-doctoral fellow, Cleveland Clinic Foundation, Cleveland, USA
1999-2005	PhD, IIT Bombay, Mumbai
1998	MSc Project, ICRISAT, Hyderabad, AP

Projects	MicroRNA (miRNA) signaling networks in end stage human heart failure Signaling networks and pathways in end stage transgenic mouse heart failure using microarrays Sequence analysis and phylogenetic studies of GPCRs Laccase purification, identification and characterization from <i>A.niger</i> Sequence, structure and phylogenetic analysis of fungal and plant laccases Identification of molecular markers in <i>C. graminicola</i> using RAPD, RFLP and AFLP
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Publications

- Clinical genomicist workstation, Surampudi S *et al.*, AMIA Summits Transl Sci Proc. 2013 Mar 18;2013:156-7
- A unique microRNA profile in end-stage heart failure indicates alterations in specific cardiovascular signalling networks, Venkata Suresh K. Surampudi *et al.*, J. Biol. Chem. 2009 284: 27487-27499.
- Isolation of genomic DNA from acetone-dried Aspergillus mycelia, Puneekar, N. S., Suresh Kumar S.V., Jayashri, T.N., and R. Anuradha., Fungal Genet. Newsl. 2003, 50:15-16
- Combined sequence and structure analysis of the fungal laccase family, S V Suresh Kumar *et al*, Biotechnology and Bioengineering, 83 (4), 386 – 394

Abstract

- Too “DRY” GPCRs: sequence analysis of GPCRs. LRI annual symposium, 2005

Symposia

- NHLBI's PGA Symposium, "From Genome to Disease II: A Symposium of High Throughput Biology", Natcher Conference Center, National Institutes of Health Bethesda, Maryland, 2005.
- Lerner Research Institute 60th Anniversary Symposium, 2005

Teaching

- Teaching assistant, Bioschool, IITB, Mumbai (PG Course: Computers in Biology I & II, 1999-2000).
- Bioinformatics support, Continuing Education Program workshop (Bioinformatics), IITB, Mumbai (2001)
- Bioinformatics support, Bioinformatics workshop, CDAC, Pune (2001).

- Invited seminar on sequence, structure and functional analysis of proteins and genes, Advanced P G Diploma in bioinformatics, IICT, Hyderabad (2001)
- Guest faculty (bioinformatics), Diploma in Bioinformatics, SSI, Ghatkopar, Mumbai (2004).

Fellowships and academic achievements

- CSIR- JRF and GATE -98
- Dept of Biotechnology (India) Fellowship (96-98), Telugu vignana paritoshikam (1987-'89)
- University 3rd (MSc, CEEB-Biotechnology)
- State 3rd in Dwiteeya (sanskrit)
- Certificates in USO, APPLA, RRMI, TTD dharma prachara parishad

Key skills

Bioinformatics:

Expertise in	Sequence analysis, Phylogenetics, Micro array data analysis - (SNP, 3' IVT, Exon and miRNA), NGS data analysis (WES, Cancer exome, RNA-seq), GATK best practice work flow for WES and RNA-seq, Clinical variant db (Clinvar, HGMD, COSMIC), clinical variant classification
Standards	HGVS, VCF, HL7 (CG template, Tier 1 and 2 pipelines)
Tools	Genespring GX™, Vector NTI, Mac Vector 7™, R/Bioc, Gene sifter™, Ingenuity Pathway analysis™, Lucidix™, Affymetrix genotype console™, IGV, Netaffx™, Samtools, VCFlib, BED tools, SNPeff, ENSEMBL-VEP, Genome explorer™, GATK, PICARD tools, BPIPE and GEMINI.
Panels	Comprehensive cancer, lung cancer, EOAD panel
NGS analysis	WES, RNA-seq

IT:

OS	Windows, Linux (CentOS, RHEL, Ubuntu), OS X, FreeBSD
DB	Oracle 12g express , MS Access
Office	MS office, iWorks, Open and Libre office
Cloud/cluster	AWS-Starcluster architecture, openlava 2.x
Project management	Bioinformatics SDLC (Argo UML, JIRA, Balsamiq, JIRA-Zephyr, Testlink and JIRA)
Scripting	Bash, Python/biopython
Documentation	RFQ and RFP documentation

Other details

Nationality	Indian
Marital status	Married
Languages	Telugu, Hindi and English

Declaration

I declare that the above information provided is true to the best of my knowledge.

(S V Suresh Kumar)