

S Venkata Suresh Kumar, PhD
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<https://genomebio.github.io>

Key words

Chief bioinformatics officer, Team Manager, Clinical genomics, Bioinformatics, SDLC, Workflow development, Cardio vascular, Neuro and Onco informatics, Targeted panels, Biotechnology, Microbiome, Senior scientist

Key skills

Human, mouse and fungal genomics and transcriptomics, Microbiome analysis, Workflow creation, Business analysis, Product and service delivery, Bioinformatics SDLC, Team management

Products

<u>Products</u>	Designstudio™, Navipointgenomics India Private Limited, India
	Genome explorer™ & IGR™, GLC-GIC, Chennai, India
	Clinical genomicist work station™, SB, Hyderabad
	GenespringGx™, Mass profiler Pro™, SLS, Bangalore

<u>R-shiny apps</u>	COVID-19 status across world (https://suressv.shinyapps.io/covid19_19042020/)
	COVID-19 status in India (https://suressv.shinyapps.io/india_covid_03052020/)
	Basic volcano plot (https://suressv.shinyapps.io/expression_plots/)
	DNA and Peptide sequence simulator (https://suressv.shinyapps.io/aa_nt_seq_simulation_31052020/)

Industrial experience, post PhD

November, 2019 -	Chief Bioinformatics Officer, Navipointgenomics India Private Limited, Hyderabad, India
Sep, 2018 – Nov, 2019	Bioinformatics manager, Bioserve Biotechnologies India Private limited (A Reprocell™ company), Hyderabad, India
June, 2016- Nov, 2016	Team Manager, Cognizant Technology Solutions India Pvt Ltd, Mumbai, India
Oct, 2014- June, 2016	Senior Scientist and Consultant, Virtue biologics, Hyderabad, India
June, 2013- Sep, 2014	Scientist II (functional lead), Genome Lifesciences, Chennai, India (Parent company: Genome International Corporation, WI, US)

July, 2011- May, 2013	Bioinformatics analyst II, SemanticBits India private limited, Hyderabad, AP, India (Parent company: SemanticBits, Herndon, US)
Aug, 2008- June, 2010	Sr. scientist II (bioinformatics), Strand Lifesciences private limited, Bangalore, KA, India

Publications

- Parvez MK, Jagirdar RM, Purty RS, **Venkata SK**, Agrawal V, Kumar J and Tiwari N: COVID-19 pandemic: Understanding the emergence, pathogenesis and containment (Review). World Acad Sci J 2: 18, 2020
- A unique microRNA profile in end-stage heart failure indicates alterations in specific cardiovascular signaling networks, Naga Prasad SV, Gupta MK, Duan ZH, **Surampudi VSK**, Liu CG, et al. (2017) A unique microRNA profile in end-stage heart failure indicates alterations in specific cardiovascular signaling networks. PLOS ONE 12(3): e0170456.
- Clinical genomicist workstation, **Surampudi S et al.**, AMIA Summits TranslSci Proc. 2013 Mar 18;2013:156-7 (not first author)
- 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

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	<p>MicroRNA (miRNA) signaling networks in end stage human heart failure</p> <p>Signaling networks and pathways in end stage heart failure transgenic mouse models, using mouse genomic 3'-IVT microarrays</p> <p>Sequence analysis and phylogenetic studies of GPCRs</p> <p>Laccase purification, identification and characterization from <i>A. niger</i></p> <p>Sequence, structure and phylogenetic analysis of fungal and plant laccases</p> <p>Identification of molecular markers in <i>C. graminicola</i> using RAPD, RFLP and AFLP</p>
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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

- Telugu vignana paritoshikam (1987- '89) (AndhraPradesh)
- Dept of Biotechnology (India) Fellowship (96-98) in MSc Biotechnology
- University 3rd (MSc Biotechnology, University of Calicut, Kerala)
- CSIR- JRF and GATE -98 fellowship for lifesciences qualified
- District 1st in Science fair 89, Kalyanadurgam, Anantapur
- District 1st in Science Quiz 89, Hindupur, Andhrapradesh, India
- College 3rd in Vivenkananda memorial Quiz, 1994, Nellore, Andhrapradesh, India
- State 3rd in Dwitiya (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 (WGS, WES, Cancer exome/Panels, RNA-seq, Microbiome), GATK best practice workflows, Clinical variant classification, R-Shiny apps
Standards	HGVS, VCF, HL7 (CG template, Tier 1 and 2 pipelines), 21CFR 866.5950
Products and tools	GenespringGX™, VectorNTI™, MacVector7™, Genesifter™, Ingenuity Pathway analysis™, Lucidix™, Affymetrix genotype console™, IGV, Netaffx™, Samtools, BCFtools, BEDtools, SNPeff, ENSEMBL-VEP, Genome explorer™, GATK, PICARD tools, GEMINI, CLCbio, Designstudio™ (Globus genomics), Qiime 2, Megan v5, fast-GBS, TASSEL
Disease panels	Comprehensive cancer panel, Lung cancer panel, EOAD panel
NGS analysis	WGS, WES, Targeted panels, RNA-seq, 16s amplicon sequencing
Sequencers	Illumina™ Nextseq 550, Illumina™ HiSeq 2000, Ion-Torrent S5

IT:

OS	Windows, GNU-Linux (CentOS, RHEL, Ubuntu), OS X, FreeBSD
DB	Oracle 12g express, MS Access
Office	MS office, iWorks, Libre office

Cloud	Cloud (AWS) and cluster-based genomics application development
Project management	Informatics SDLC (Argo UML, Confluence, Trello, Balsamiq, JIRA-Zephyr, Testlink and JIRA)
Scripting/ Language	Bash, R, Python/biopython, AWK, SED, Markup (R, Git, Jekyll)
Documentation	RFQ and RFP documentation
Workflow management	Snakemake, Bpipe, Shell scripting
IDE	R-studio, Jupyter
Versioning	GIT

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)