

# Tanmoy Sarkar

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## Executive Brief

An analytical, tech-savvy, detail-oriented professional with 6+ years of STEM research background.

## Summary of Skills

Core Skills	<ul style="list-style-type: none"><li>• <b>Cell culture protocols</b> Well versed in primary stem cell culture including tissue isolation, enrichment, cryopreservation, FACS, characterization, quantitation, and lysis. Also familiar with both broth-based and agar-based bacterial cell cultures.</li><li>• <b>Molecular biology techniques</b> a) <i>Protein-based assays</i> – 2D-PAGE, ELISA, MALDI-TOF, HPLC and Western blotting, b) <i>DNA/RNA-based assays</i> – gene cloning, vector engineering, electroporation, qRT-PCR, cDNA, restriction mapping and epigenetic profiling.</li><li>• <b>Microscopy</b> confocal microscopy, live-cell imaging, inverted microscopy, in addition to regular compound microscopy used in histological, hematological and microbial studies.</li><li>• <b>Clinical physiology practices</b> sphygmomanometry, phlebotomy, spirometry.</li><li>• <b>Clinical blood tests</b> blood sugar, blood uric acid, serum urea estimations.</li><li>• <b>Bioinformatics strategies</b> BLAST, FASTA3, ClustalW</li><li>• <b>Biostatistical procedures</b> t-tests, Mann-Whitney tests, Chi-square tests, ANOVA analyses.</li><li>• <b>Biological Instrumentation</b> BD FACScalibur, Roche LightCycler 480, Biorad Image Lab, Nanodrop</li></ul>
Technical skills	<ul style="list-style-type: none"><li>• <b>Programming languages</b> a) <i>Typesetting</i> – Groff <sup>1</sup>, LaTeX, Markdown, HTML, b) <i>Statistical and data-base management</i> – R, MySQL, c) <i>Basic scripting and automation</i> – Bash, Lua, Python</li><li>• <b>Git-based version control systems</b> git, diff, patch</li><li>• <b>Image modification and quantitation</b> ImageJ, PDQuest, Inkscape, GIMP, imagemagick</li><li>• <b>Linux sysadmin tools</b> vi, cron, ssh, sed, awk, grep, find, fdisk, systemd, ip, curl, wget, grub</li><li>• <b>Advanced MS-Office proficiencies</b> pivot table creation, batch operations</li><li>• <b>Advanced Web-based skills</b> OAuth2 token generation, XML feed generation</li></ul>
English Skills	Excellent verbal and written communication skills <sup>2</sup> , with a decent typing speed of 45WPM.
Key Strengths	Finely-tuned analytical skills with a dedication to expanding subject knowledge and workplace competencies through continuous perseverance. Unparalleled multitasking and time management skills, able to think outside the box. Excellent team player, can easily instill trust and confidence in colleagues.

## Professional Experience

2014 - 2021	<p><b>CSIR-Institute for Genomics &amp; Integrative Biology</b> – New Delhi</p> <p><i>Research Fellow</i></p> <p>Meticulously worked under the supervision of Dr. Sagarika Biswas to accomplish:</p> <ul style="list-style-type: none"><li>• setup viable cell culture laboratory and standardized stem cell culture protocols</li><li>• performed RNA and protein studies on patient samples</li><li>• carried out animal handling and dissection in accordance with ethical committee procedures</li><li>• additionally, arranged seminars, guided trainees, collected samples, and other laboratory related subsidiary works</li></ul> <p>– thesis titled <i>Cytokine-mediated modulation of stem cell behaviour in rheumatoid arthritis</i>.</p>
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<sup>1</sup> This document was prepared in the vi text editor using groff typesetting language.

<sup>2</sup> Score of 098/120 in Test of English as a Foreign Language (TOEFL) Internet-Based Test (iBT), from August 2012.

2011 - 2012	<b>DBT-Centre for DNA Fingerprinting &amp; Diagnostics – Hyderabad</b> <i>Research Fellow</i> Worked under the guidance of Dr. Subhadeep Chatterjee to achieve: • restriction enzyme-based plasmid modifications towards bacterial genetic engineering – thesis titled <i>Probing plant-microbe interactions in Xanthomonas quorum sensing</i> .
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## Awards & Achievements

2014	<b>Joint CSIR-UGC National Eligibility Test (NET) for JRF &amp; LS – CSIR</b> Rank – <i>CSIR 064</i>
2013	<b>Joint CSIR-UGC National Eligibility Test (NET) for JRF &amp; LS – CSIR</b> Rank – <i>UGC 048</i>
2012	<b>Graduate Records Examination (GRE) – ETS</b> Percentile Rank – • <i>Verbal Reasoning – 64</i> • <i>Quantitative Reasoning – 82</i>
2011	<b>Graduate Aptitude Test in Engineering (GATE) – IIT Madras</b> Rank – <i>515</i>
2010	<b>Joint CSIR-UGC National Eligibility Test (NET) for JRF &amp; LS – CSIR</b> Rank – <i>CSIR 091</i>
2006	<b>DST-Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship – IISc Bangalore</b> <b>National Level Science Talent Search Examination (NSTSE) – Unified Council India, Hyderabad</b> Rank – <i>352</i>

## Publications & Posters

2020	Sarkar, A., Sharma, S., Agnihotri, P., <b>Sarkar, T.</b> , Kumari, P., Malhotra, R., Datta, B., Kumar, K., Biswas, S. <i>Synovial fluid cell proteomic analysis identifies upregulation of <math>\alpha</math>-taxilin proteins in rheumatoid arthritis: a potential prognostic marker.</i> Journal of Immunology. DOI: <b>10.1155/2020/4897983</b>
2014	<b>38th All India Cell Biology Conference and International Symposium on Cellular Response to Drugs – CSIR-Central Drug Research Institute (CDRI).</b>

## Educational Background

2016	<b>Senior Research Fellow – University Grants Commission</b> <i>CSIR-Institute of Genomics &amp; Integrative Biology, New Delhi</i>
2014	<b>Junior Research Fellow – University Grants Commission</b> <i>CSIR-Institute of Genomics &amp; Integrative Biology, New Delhi</i>
2011	<b>Junior Research Fellow – Council for Scientific &amp; Industrial Research</b> <i>DBT-Centre for DNA Fingerprinting &amp; Diagnostics, Hyderabad</i>
2011	<b>Master of Science – Utkal University, Bhubaneswar</b> <i>PG Department of Biotechnology, Utkal University, Bhubaneswar</i>
2009	<b>Bachelor of Science with Honours – University of Calcutta</b> <i>erstwhile Presidency College, now Presidency University, Kolkata</i>

## References

Dr. Sagarika Biswas	Scientist 'F', CSIR-IGIB, Proteomics lab, Room 311, North Campus, Mall Road, near Jubilee Hall, Delhi University campus, Delhi – 110007. Email: <a href="mailto:sagarika.biswas@igib.res.in">sagarika.biswas@igib.res.in</a> Phone: +91-1127662581
Dr. Dakshayani Mahapatra	Assistant Professor (WBES), Dept. of Physiology, Government General Degree College, Mohanpur, Paschim Medinipur, WB. PIN – 721436. Email: <a href="mailto:dakshayani.mahapatra@gmail.com">dakshayani.mahapatra@gmail.com</a> Phone: +91-9830655682
Dr. Sumit Kumar Gautam	Lead Scientist, Clear Meat Pvt. Ltd., B 78, First Floor, Sector 2, Noida, Near Sector 15 Metro Station. PIN – 201301. Email: <a href="mailto:sumit.k@clearmeat.com">sumit.k@clearmeat.com</a> Phone: +91-8826954099