Curriculum Vitae

Dr. SANTANU KAR MAHAPATRA

M. Sc. Human Physiology
(Specialization: Microbiology and Immunology)
Ph. D. Physiology

Date of birth: 24th January 1982

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Department of Paramedical and Allied Health Sciences, Midnapore City College, MORAINE HRDO, Bhadutala, West Bengal, India, Pin-721129
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Present Position:

Working as Associate Professor, Department of Paramedical and Allied Health Sciences, Midnapore City College, MORAINE HRDO, Midnapore, West Bengal (From 1st February 2021 to till date).

Professional Highlights:

Teaching Experience: 8 years (PG), Assistant Professor (Research), School of Chemical and Biotechnology, SASTRA Deemed to be University, Thanjavur, India.

Post-Doctoral Research: 2 years (As Research Associate –III, DBT Project), Bose Institute, Kolkata.

International publication (SCI/Scopus): 59; Total impact factor: 232.82; total citation: 1474; h index: 23; i10-index: 38 (Ref: Google Scholar); National publication: 03.

International Patent: One

Funded Major Project: **SERB, Govt. of India: One**
DBT, Govt. of India: One
Company Project (FNDR): One

Doctoral study guidance: 4 [Completed- 02; Thesis Submitted- 01, Ongoing-01]

PG and UG project guidance: PG- 06; UG- 13

EDUCATIONAL QUALIFICATION AND EXPERIENCE:

- **Bachelor of Science (2003): Physiology Honours with 1st Class (61%),** Midnapore College, Vidyasagar University, West Bengal, India.

- **Master's of Science (2005): Human Physiology (Major); Special paper: Microbiology and Immunology with 1st Class (68.2%)**, Vidyasagar University, West Bengal, India.

- **Ph. D. degree (2010):** Ph. D. in Physiology, Vidyasagar University, West Bengal, India.

  Thesis Title: *In vitro study of inflammatory response and apoptosis in murine peritoneal macrophages in response to nicotine-induced oxidative stress: An ameliorative array of Ocimum gratissimum Linn.* Ph. D. supervisor Prof. Somenath Roy, Vidyasagar University and Prof. Subrata Majumdar, Bose Institute.

- **Junior research fellow in DST sponsored project (March 2008 to December 2010):**
  Topic: *Molecular approach for monitoring drug resistant malaria parasite in the malaria endemic zone in West Bengal.* (PI: Prof. Amiya kumar Hati, Ex-Director Calcutta School of Tropical Medicine and Prof. Somenath Roy, Ex-Professor, Vidyasagar University).

- **Postdoctoral Research (December 2010 to November 2012)**: Postdoctoral Research Associate III in the Division of molecular Medicine, Bose Institute, Kolkata, India. (PI: Prof. Subrata Majumdar, Bose Institute).
  Topic: *Arabinosylated Lipoarabinomannan (Ara-LAM) isolated from non-pathogenic mycobacteria in the restoration of the impaired cell mediated immune response in a murine model (BALB/c mice and IL-12KO BALB/c mice) of leishmaniasis.*

Professional Experience (December 2012 to December 2020)

Assistant Professor (Research), Centre for Research in Infectious Diseases (CRID), Department of Biotechnology, School of Chemical and Biotechnology (SCBT), SASTRA Deemed To Be University, Thanjavur – 613401, Tamil Nadu, India.

Responsibility:

Teaching:
1. PG (Biotechnology and Molecular Genetics): Immunology Theory & Laboratory course.
2. UG (Biotechnology): Immunology Laboratory; Seminar.

Research:
1. Macrophage Repolarization to treat Visceral Leishmaniasis and Cancer.
2. Marine bacteria BPMS22 Ag/protease inhibitor induced anti-VL immune response.
3. Anti-leukemia therapeutics.

Administrative responsibility:

1. Lab-in-charge: Immunology Laboratory (UG and PG)
2. Immunology Theory and Lab syllabus (UG and PG)
3. Doctoral Committee Member, SCBT.

Sponsored Project:

1. **Project title:** Bioprospecting of a protein protease inhibitor from an isolated marine bacterium *Oceanimonas Sp.* BPMS22 and its role on macrophage repolarization in the treatment of Visceral Leishmaniasis. **Total Budget: 49.932 Lakhs,** Fund by **DBT, Govt. of India, Principal Investigator (2018–2021)**, **Completed.**

2. **Project title:** Discovery and development of novel, long-acting anti-leishmanial drugs. **Total Budget: 65.63 Lakhs,** Funded by **Foundation for Neglected Disease Research (FNDR), Bangalore, India**, **Principal Investigator (2017–2020), Completed.**

3. **Project title:** Study of anti-leishmanial synergic potential of miltefosine and CXCL10 (SERB-Young Scientist Scheme), **Total budget: INR 24 Lakhs,** Funded by **SERB-Young Scientist Scheme**, **Principal Investigator, (2014 – 2017)**, **Completed.**

4. **Project title:** Study of dual drug loaded nano-liposome in preclinical model of visceral leishmaniasis. Total Budget: **INR: 1.0 Lakh**, Funded by **SASTRA Deemed To Be University, SASTRA Innovation Fund, Mentor** (2016 – 2017), **Completed.**

5. **Project Title:** Immunomodulatory role of andrographolide against visceral leishmaniasis. TRR project, funded by **SASTRA Deemed To Be University**. Total budget: **INR: 1.0 Lakh**. **Principal Investigator** (December 2012 – December 2013), **Completed.**

Research supervision:

Ph.D.:

1. **Name of the Student:** Mr. Mamilla R. Charan Raja, CSIR-SRF, Reg. No.: PHBTF11404772
   Title of the Thesis: Eugenol-derived immunomodulatory molecule against experimental visceral leishmaniasis.
   Awarded: 26th August 2020. (Ph D final viva-voce date)

2. **Name of the Student:** Miss Amrita Kar, JRF, FNDR Project, Reg. No.: PHBIOFI17031123
   Title of the Thesis: Study of the anti-leishmanial immune response of eugenol oleate with amphotericin B and miltefosine in experimental visceral leishmaniasis
   Thesis submitted: 12th June 2021

3. **Name of the Student:** Miss Sujatha S, TA, SASTRA, Reg. No.: PHBIOFI16031019
   Title of the Thesis: Isolation and characterization of biomolecules from agriculture waste product and its effect on macrophage polarization to treat visceral leishmaniasis.
   Expected to submit thesis: September 2021

4. **Name of the Student:** Mr. Adityan J, JRF, DBT Project, Reg. No.: PHBTFI 19011304
   Title of the Thesis: Bioprospecting of PPI from *Oceanimonas Sp.* BPMS22 and its role on macrophage repolarization in the treatment of Visceral Leishmaniasis.
   Expected to submit thesis: December 2021

P.G. (M. Sc. & M. Tech.) Project:

1. Miss Avantika Kumar (Reg. No. 120134001), M.Sc. in Molecular Genetics, SASTRA Deemed to be University; *Title: Study of macrophage polarization and immune metabolism: role of marine immunomodulator.* 2019-20.
2. Mr. S. Ramakrishnan (Reg. No.119134007), M.Sc. in Molecular Genetics, SASTRA Deemed to be University; *Title: Study of 'SNP-ApAGP' induced Toll-like receptors expression and immunomodulation in Leishmania donovani infected murine macrophages in vitro.* 2018-19

3. Ms. Puja Sharma (Reg. No. 118069023), M.Sc. in Biotechnology, SASTRA Deemed to be University; *Title: Eugenol derivative enhanced the doxorubicin responsiveness against chronic myeloid leukaemia.* 2017-2018.
4. Ms. P. Keerthana (Reg. No. 117123006), M. Tech in Biotechnology, SASTRA University; *Title: Effect of non-pathogenic marine bacterial antigen against visceral leishmaniasis.* 2016-2017.
5. Ms. S. Sujatha (Reg. No. 116069020), M.Sc. in Biotechnology, SASTRA University; *Title: Effect of liposomal acetyl shikonin against visceral leishmaniasis*. 2015-2016.
6. Mr. C. Naresh Kumar (Reg. No. 116069008), M. Sc. in Biotechnology, SASTRA University; *Title: Study of silver nano conjugated arabinogalactan protein induced amendment of macrophage polarization.* 2015-2016.

U.G (B. Tech.) Project:

1. Aishwarya R. **(**120010010**),** B. Tech in Biotechnology, SASTRA Deemed to be University; *Title: Role of iNOS2 and p38 MAPK in proteinaceous biomolecule induced anti-leishmanial response.* 2019-2020.
2. Kirubaa M. (120010063), B. Tech in Biotechnology, SASTRA Deemed to be University; *Title: Modulation of TLRs expression in Leishmania donovani infected macrophages by isolated biomolecule.* 2019-2020.
3. Mr. Rohit Suriyaa K (Reg. No.:119010067), B. Tech in Biotechnology, SASTRA Deemed to be University; *Title: Role of MAPKinase phosphatases (MKPs) in SNP-ApAGP induced anti-leishmanial immune response in vitro.* 2018-2019.
4. Ms. Adithi K. (Reg. No.: 118010002), B. Tech in Biotechnology, SASTRA Deemed to be University; *Title: Targeted delivery of dual drug loaded liposomes against experimental Visceral Leishmaniasis.* 2017-2018.
5. Ms. Nandhini V. (Reg. No.: 118010051), B. Tech in Biotechnology, SASTRA Deemed to be University; *Title: Study of dual drug loaded nano liposomes in pre-clinical model of Visceral Leishmaniasis.*2017-2018.
6. Ms. D.R. Phebee Angeline (Reg. No.:118010058), B. Tech in Biotechnology, SASTRA Deemed to be University; *Title: Study on proteinaceous biomaterial adjuvanticity against Leishmania infection in vitro.* 2017-2018.
7. Ms. Pavithra UL (Reg. No.: 118010057), B. Tech in Biotechnology, SASTRA Deemed to be University; *Title: In vitro study of anti-tumor activity of Arabinogalactan protein coated silver nanoparticles against DLA cells*. 2017-2018.
8. Ms. Varsha S. (Reg. No.: 117010090), B. Tech. in Biotechnology, SASTRA University; *Title: Dual Drug Loaded Nano-Liposome against Visceral Leishmaniasis.* 2016-2017.
9. Ms. Sharmila S. (Reg. No.: 117010074), B. Tech in Biotechnology, SASTRA University; *Title: Effect of Miltefosine in Combination with Acetyl Shikonin against Experimental Visceral Leishmaniasis.* 2016-2017.
10. Ms. Nivedha R. (Reg. No.: 117010053), B. Tech in Biotechnology; SASTRA University; *Title: Glycoprotein Fabricated Silver Nanoparticle Induces Anti- Leukemia Immune Response in Experimental Myeloid Leukemia Model.* 2016-2017.

11. Ms. Roshni M. (Reg. No.: 117010065), B. Tech in Biotechnology; SASTRA University; *Title: A Nano-Biocomposite for tumor regression In Dalton's Lymphoma Ascites model.* 2016-2017.
12. Ms. Keerthiga P. (Reg. No.: 117010035), B. Tech in Biotechnology; SASTRA University; *Title: Effect of Platinum Nanoparticle-Acetyl Shikonin against BCR/ABL$^+$ Human Chronic Leukemia.* 2016–2017.
13. Ms. R. Subha Shree (Reg. No. 116011021), B. Tech in Bioengineering; SASTRA University; *Title: Study on immunostimulatory role of arabinogalactan protein encapsulated zinc sulphide nano particles towards killing of leukemic cells.* 2015–2016.

RESEARCH EXPERIENCE (Before joining at SASTRA Deemed to be University)

1. Division of Molecular Medicine, Bose Institute, Kolkata, India.

Research Associate III, DBT Project (December 2010 to November 2012)

- Understanding the role of Arabinosylated Lipoarabinomannan (Ara-LAM) isolated from non-pathogenic Mycobacterium in the restoration of the impaired cell mediated immune response in a murine model (BALB/c mice and IL-12KO BALB/c mice) of visceral leishmaniasis.
- Regulations and functions of T-bet and GATA3 in $CD4^+$ T cells and effector $CD8^+$ T cell.
- TLR2 mediated activation of $CD8^+$ T cells during visceral leishmaniasis.
- Ara-LAM mediated chromatin modification during $CD8^+$T cell activation.
- Miltefosine mediated proinflammatory response via TLR signaling during visceral leishmaniasis.
- Understanding the mechanism of TLR signalling in Tumor Associated Macrophages (TAM).

2. Immunology and Microbiology Lab, Department of Human Physiology with Community Health, Vidyasagar University, West Bengal, India.

Doctoral study and JRF, DST Project (September 2005 to November 2010)

- Isolation and characterization of active purified compound Eugenol.
- Study of nicotine-induced free radical generation, regulation of glutathione cycle, dampen of immune functions and cytokines balance, and mitochondrion dependent apoptotic cell death in murine peritoneal macrophages.
- Understanding the role of Eugenol and *N-acetylcysteine* in the free radical scavenging activity, anti-inflammatory and anti-apoptotic activity in the murine macrophages.
- Oxidative stress in lymphocytes, neutrophils, and serum of oral cavity cancer patients: modulatory array of *L*-glutamine.
- Age associated oxidative damage in lymphocytes, and neutrophils.
- Development of animal models (Albino rat and Swiss mice) for *in vivo* studies.
- Nano-conjugated drug delivery to drug resistant bacteria, malaria parasite, and cancer cell line.
- Isolation and characterization of drug resistant bacteria.
- Genomics study to detect the chloroquine resistant *P. falciparum* parasite from infected patient.
- Parasite culture and *in vitro* drug susceptibility assay.

PUBLICATIONS & PATENTS:

INTERNATIONAL PATENT

1. Joy Debnath, **Santanu Kar Mahapatra,** Shridhar Narayanan, RK Shandil, Vijay Potluri, Mamilla R. Charan Raja, B. Anand. Compositions of Eugenol Derivatives for treatment of Visceral Leishmaniasis. International publication no: WO 2019/030643A1.

International Journal Publication:

1. Kar A, Jayaraman A, Kumar A and **Kar Mahapatra S***. Dynamicity in Host Metabolic Adaptation Is Influenced by the Synergistic Effect of Eugenol Oleate and Amphotericin B During Leishmania donovani Infection In Vitro. ***Front. Cell. Infect. Microbiol.*** **2021,** 11:709316. ISSN: 2235-2988. doi: 10.3389/fcimb.2021.709316. **SCI-E, IF: 5.293**.

2. Kar A, Charan Raja MR, Jayaraman A, Srinivasan S, Debnath J**, Kar Mahapatra S***. Oral combination of eugenol oleate and miltefosine induce immune response during experimental visceral leishmaniasis through nitric oxide generation with advanced cytokine demand. ***Cytokine*** 146 (2021) 155623. ISSN: 1043-4666. **IF:3.861, SCI.**

3. Kar A, Jayaraman A, Charan Raja MR, Srinivasan S, Debnath J**, Kar Mahapatra S***. Synergic effect of eugenol oleate with amphotericin B augments anti-leishmanial immune response in experimental visceral leishmaniasis *in vitro* and *in vivo*. ***Int Immunopharmacol*.** 2021; 91:107291. DOI: 10.1016/j.intimp.2020.107291. **ISSN:** 1567-5769(Print), 1878-1705(Electronic). **SCI; IF: 4.932.**

4. Sarkar MK, Kar A, Jayaraman A, **Kar Mahapatra S**, Vadivel V*. Vitexin isolated from Prosopis cineraria leaves induce apoptosis in K-562 leukemia cells via inhibition of the BCR-ABL-Ras-Raf pathway. ***J Pharmacy Pharmacol 2021***. ISSN:2042-7158. DOI: 10.1093/jpp/rgab085. **SCI. IF: 2.571.**

5. Sarkar MK, Kar A, Jayaraman A, Shanmugam K Vadivel V., **Kar Mahapatra S***. Apoptotic mechanism of myricitrin isolated from Madhuca longifolia leaves in HL-60 leukemia cells. **Molecular Biology Reports**. (2021). ISSN: 0301-4851 (print); 1573-4978 (web). DOI: 10.1007/s11033-021-06500-z. **SCI. IF:2.316.**

6. Sarkar MK, Kar A, Jayaraman A, **Kar Mahapatra S***, Vadivel V. Pharmacokinetic properties and anti-proliferative mechanisms of vanillin against acute lymphoblastic leukemia (Jurkat) cells. ***South African Journal of Botany*** 142 (2021) 82-87. ISSN: 0254-6299. DOI: 10.1016/j.sajb.2021.06.016. **SCI, IF: 2.315.**

7. Rajasekar N, Sivanantham A, Kar A, Mukhopadhyay S, **Kar Mahapatra S,** Paramasivam SG, Rajasekaran S. Anti-asthmatic effects of tannic acid from Chinese natural gall nuts in a mouse model of allergic asthma. ***Int Immunopharmacol*.** 98 (2021) 107847. DOI: 10.1016/j.intimp.2021.107847. **ISSN:** 1567-5769 (Print), 1878-1705(Electronic). **SCI; IF: 4.932.**

8. Charan Raja MR, Kar A, Srinivasan S, Chellappan D, Debnath J**, Kar Mahapatra S***. Oral administration of eugenol oleate cures experimental visceral leishmaniasis through cytokines abundance. ***Cytokine.145 (*****2021)** 155301. DOI: 10.1016/j.cyto.2020.155301. ISSN: 1043-4666. **IF:3.861, SCI.**

9. Harish BS, Charan Raja MR, **Kar Mahapatra S*,** Uppuluri KB*****. Production enhancement of an anticoagulant trypsin inhibitor from *Oceanimonas* sp. BPMS22 and its anti-cancer activity. ***International Journal of Peptide Research and Therapeutics.*** **2021. 27**, 197–208. https://doi.org/10.1007/s10989-020-10078-8. ISSN: 1573-3149, 1573-3904. **IF: 1.931. SCI.**

10. Rajasekar N, Sivanantham A, Kar A, **Kar Mahapatra S**, Ahirwar R, Thimmulappa RK, Paramasivam SG, Subbiah R. Tannic acid alleviates experimental pulmonary fibrosis in mice by inhibiting inflammatory response and fibrotic process. ***Inflammopharmacology.*** **2020** Oct;28(5):1301-1314. doi: 10.1007/s10787-020-00707-5. **ISSN:** 1568-5608, 0925-4692. IF: **4.473, SCI.**

11. Makala H, Alexandar SP, Nagarajan D, **Kar Mahapatra S**, Ulaganathan V. Lead Generation for Human Mitotic Kinesin Eg5 using Structure-based Virtual Screening and Validation by in vitro and Cell-based Assays. ***Curr Comput Aided Drug Des***. 2020 Jul 22. doi: 10.2174/1573409916666200722141218. Epub ahead of print**.** ISSN: 1573-4099. **IF: 1.606, SCI.**

12. Sarkar MK, **Kar Mahapatra S,**** Vadivel V.*** (2020).** Oxidative stress mediated cytotoxicity in leukemia cells induced by active phyto-constituents isolated from traditional herbal drugs of West Bengal. ***J Ethnopharmacol.*** 251 (2020) 112527. DOI: 10.1016/j.jep.2019.112527. ISSN: 0378-8741. **IF: 4.36. SCI.**

13. Sivanantham A, Pattarayan D, Rajasekar N, Kannan A, Loganathan L, Bethunaickan R, **Kar Mahapatra S,** Palanichamy R, Muthusamy K, Rajasekaran S. (2019). Tannic acid prevents macrophage-induced pro-fibrotic response in lung epithelial cells via suppressing TLR4-mediated macrophage polarization. ***Inflamm Res.*** 68(12):1011-1024. DOI: 10.1007/s00011-019-01282-4. ISSN: 1023-3830, 1420-908X. **IF: 4.575, SCI.**

14. Rajarajan D, Selvarajan S, Charan Raja MR, **Kar Mahapatra S,** Kasiappan R. (2019). Genome-wideanalysis revealsmiR-3184-5pandmiR-181c-3p as a critical regulator for adipocytes-associated breast cancer. ***J Cellular Physiology.*** 34(10):17959-17974. DOI: 10.1002/jcp.28428. ISSN: 0021-9541; 1097-4652. **IF: 6.384. SCI.**

15. Sarkar MK, Vadivel V,***** Charan Raja MR, **Kar Mahapatra S*** (2019) Investigation of phytochemical constituents of anti-leukemic herbal drugs used by the traditional healers of Purulia, Birbhum and Bankura districts of West Bengal. ***Nat Prod Res.*** 34(23): 3388-3393. DOI: 10.1080/14786419.2019.1566818. ISSN: 1478-6419; 1478-6427. **IF:2.861. SCI-E.**

16. Sivanantham A, Pattarayan D, Bethunaickan R, Kar A, **Kar Mahapatra S**, Thimmulappa RK, Palanichamy R, Rajasekaran S. (2019). Tannic acid protects against experimental acute lung injury through down-regulation of TLR4 and MAPK. ***J Cellular Physiology***. 234(5):6463-6476. DOI: 10.1002/jcp.27383. ISSN: 1097-4652. **IF: 6.384. SCI.**

17. Sarkar MK, Vadivel V,***** Charan Raja MR, **Kar Mahapatra S*** (2018) Potential anti-proliferative activity of AgNPs synthesized using *M. longifolia* in 4T1 cell line through ROS generation and cell membrane damage. ***J Photochem Photobiol B: Biology***, 186: 160-168. doi:10.1016/j.jphotobiol.2018.07.014. ISSN: 1011-1344. **IF: 6.252**. SCI.

18. Charan Raja MR, Velappan AB, Chellappan D, Debnath J,* **Kar Mahapatra S**,*. (2017). Eugenol derived immunomodulatory molecules against visceral leishmaniasis. ***Eur J Med Chem.,*** 139: 503-518. DOI: 10.1016/j.ejmech.2017.08.030. ISSN: 0223-5234**. IF: 6.514.** SCI.

19. Charan Raja MR, Vinod Kumar V, Varsha S, Sharmila S, Nivedha R, Roshni M, Subhashree R, Philip Anthony S* and **Kar Mahapatra S***. (2017). ApAGP Fabricated Silver Nanoparticles Induce Amendment of Murine Macrophage Polarization. ***J Mater Chem B***, **5**, 3511-3520. DOI: 10.1039/C6TB02095J. ISSN 2050-7518. **IF: 6.331.** SCI.

20. Das S, Tripathy S, Chattopadhayay S, Das B, **Kar Mahapatra S,** Hati AK, Roy S. (2017) Progressive Increase in Point Mutations Associates Chloroquine Resistance: Even After Withdrawal of Chloroquine use in India. ***Int J Parasitol–Drugs and Drug Resistance*.** 7(3):251-261. DOI: 10.1016/j.ijpddr.2017.06.002. ISSN:2211-3207. **IF: 4.809.** SCI.

21. Khan Behlol AA, Charan Raja MR, **Kar Mahapatra S,** Anbazhagan V. (2017). Interaction of cadmium sulfide quantum dots with jacalin for specific recognition of cancer cells. ***J Luminescence***, 182, 283–288. DOI:10.1016/j.jlumin.2016.10.045. ISSN:0022-2313. SCI; **IF: 3.599.**

22. Velappan AB, Charan Raja MR, Datta D, Tsai Y, Halloum I, Wan B, Kremer L, Gramajo H, Franzblau SG, **Kar Mahapatra S**,* Debnath J*. (2017). Attenuation of *Mycobacterium* species through direct and macrophage mediated pathway by unsymmetrical diaryl urea. ***Eur J Med Chem.,*** 125: 825-841. DOI: 10.1016/j.ejmech.2016.09.083. ISSN: 0223-5234. SCI; **IF: 6.514**.

23. Narendran R, Shankar S, Charan Raja MR, Brindha P, **Kar Mahapatra S***, and Aravind S*. (2017) Plant phenyl-propanoids conjugated silver nanoparticles from edible plant *Suaeda maritima (L.) Dumort*. inhibit proliferation of K562-human myeloid leukemia cells. ***Artif Cells Nanomed Biotechnol***; 45(7):1336-1342. DOI:10.1080/21691401.2016.1236803. ISSN:2169-1401(Print),2169-141X (Online). SCI; **IF: 5.605**.

24. Pitchaimani J, Charan Raja MR, Sujatha S, **Kar Mahapatra S,*** Moon D,* Philip Anthony S* and Madhu V*. (2016). Arene Ruthenium (II) Complexes with Chalcone, Aminoantipyrine and Aminopyrimidine Based Ligands: Synthesis, Structure and Preliminary Evaluation of Anti-leukemia Activity. ***RSC Advances***, 6, 90982-92. DOI:10.1039/C6RA18504E. ISSN: 2046-2069. SCI-E**; IF: 3.361**.

25. Narendran R, Shankar S, Charan Raja MR, Rao HMV, Subhashree R, Venkatasubramanian U, Brindha P, **Kar Mahapatra S***, Aravind S*. (2016). Design, synthesis and in-vitro anti-leukemic evaluation of ferulic acid analogues as BCR-Abl inhibitors. ***RSC Advances***, **6**, 70480-4, DOI: 10.1039/C6RA10106B. ISSN: 2046-2069. SCI-E**; IF: 3.361**.

26. Charan Raja MR, Sujatha S, Shankar S, Narendran R, Aravind S*, **Kar Mahapatra S***. (2016). Acetyl shikonin induces IL-12, nitric oxide and ROS to kill intracellular parasite *Leishmania donovani* in infected host. ***RSC Advances***, **6**, 61777-61783. **DOI:** 10.1039/C6RA11510A. ISSN: 2046-2069. SCI-E; **IF: 3.361**.

27. Khan Behlol AA, **Kar Mahapatra S,** Charan Raja MR, Shankar S, Megarajan S, Narendran R, Dash SK, Haldar K, Roy S, Aravind S and Anbazhagan V. (2016) Jacalin capped silver nanoparticles minimizes the dosage use of the anticancer drug, shikonin derivatives against human chronic myeloid leukemia. ***RSC Advances***, **6**, 18980-18989. DOI: 10.1039/C5RA27952F. ISSN: 2046-2069. SCI-E; **IF: 3.361**.

28. Bandyopadhyay S, **Kar Mahapatra S,** Paul Chowdhury B, Kumar Jha M, Das S, Halder K, Bhattacharyya Majumdar S, Saha B, Majumdar S. (2015). Toll-Like Receptor 2 Targeted Rectification of Impaired $CD8^+$ T Cell Functions in Experimental Leishmania donovani Infection Reinstates Host Protection. ***PLOS One***., 10(11):e0142800. DOI:10.1371/journal.pone.0142800. ISSN:1932-6203. SCI-E; **IF: 3.057**.

29. Charan Raja MR, Varsha S, Sharmila S, **Kar Mahapatra S*.** (2015). Eugenol: A Versatile Phytomedicine. ***Int J Pharmacy Pharmaceutical Sci.*** Vol. 7, 35-40. ISSN**:**0975-1491**.** Scopus; **IF: 0.54.**

30. Dash SK, Chattopadhyay S, Dash SS, Tripathy S, Das B, **Kar Mahapatra S**, Bag BG, Karmakar P, Roy S. (2015). Self-assembled nano fibers of betulinic acid: A selective inducer for ROS/TNFalpha pathway mediated leukemic cell death. ***Bioorg Chem*.,** 63:85-100. DOI: 10.1016/j.bioorg.2015.09.006. ISSN:0045-2068(Print),1090-2120(Electronic). SCI; **IF: 5.275**.

31. Dash SK, Chattopadhyay S, Tripathy S, Dash SS, Das B, Mandal D, **Kar Mahapatra S,** Bag BG, Roy S. (2015). Self-assembled betulinic acid augments immunomodulatory activity associates with IgG response. ***Biomed Pharmacother.***75:205-17. DOI:10.1016/j.biopha.2015.07.033. ISSN:0753-3322(Print), 1950-6007(Online). SCI; **IF: 6.529**.

32. Dash SK, Dash SS, Chattopadhyay S, Ghosh T, Tripathy S, **Kar Mahapatra S,** Bag BG, Das D, Roy S. (2015) Folate decorated delivery of self assembled betulinic acid nano fibers: A biocompatible anti-leukemic therapy. ***RSC Advances*. 5**, 24144-24157. DOI: 10.1039/C5RA01076D ISSN: 2046-2069. SCI-E; **IF: 3.84**.

33. Chattopadhyay S, Dash SK, Tripathy S, Das B, **Kar Mahapatra S,** Pramanik P, Roy S (2015). Cobalt oxide nanoparticles induced oxidative stress linked to activation of TNF-α/caspase-8/p38-MAPK signaling in human leukemia cells. ***J Appl Toxicol.,*** 35(6):603-13. DOI: 10.1002/jat.3080. ISSN:0260-437X (Print), 1099-1263(Online). SCI; **IF: 3.446.**

34. Das S, **Kar Mahapatra S**, Tripathy S, Chattopadhyay S, Dash SK, Mandal D, Das B, Hati AK, Roy S. (2014). Double mutation in *pfmdr1* gene associates emergence of chloroquine resistant Plasmodium falciparum malaria in Eastern India. ***Antimicrob Agents Chemother.*** 58(10), 5909– 15. DOI: 10.1128/AAC.02762-14.ISSN:0066-4804(Print), 1098-6596(Online). SCI; **IF:5.191**.

35. **Kar Mahapatra S**,***** Roy S. (2014). Phytopharmacological approach of free radical scavenging and antioxidative potential of eugenol and *Ocimum gratissimum* Linn. ***Asian Pac J Trop Med.,*** 7S1, S391-7. DOI: 10.1016/S1995-7645(14)60264-9. ISSN: 1995-7645. SCI; **IF:1.772.**

36. Tripathy S, Das S, Dash SK, **Kar Mahapatra S**, Chattopadhyay S, Majumder S, Roy S. (2014). A prospective strategy to restore the tissue damage in malaria infection: Approach with chitosan-trypolyphosphate conjugated nanochloroquine in Swiss mice. ***Eur J Pharmacol.,*** 737, 11–21. DOI: 10.1016/j.ejphar.2014.04.030. ISSN:0014-2999(Print), 1879-0712(Online). SCI; **IF:4.432.**

37. Chattopadhyay S, Dash SK, **Kar Mahapatra S**, Tripathy S, Ghosh T, Das B, Das D, Pramanik P, Roy S (2014). Chitosan modified cobalt oxide nanoparticles stimulate TNF-α mediated apoptosis in human leukemic cells. ***J. Biol Inorg Chem.*** 19, 399–414. DOI: 10.1007/s00775-013-1085-2. ISSN:0949-8257(Print),1432-1327(Online). SCI; **IF: 3.358.**

38. Tripathy S, **Kar Mahapatra S**, Chattopadhyay S, Das S, Dash SK, Majumder S, Pramanik P, Roy S. (2013). A novel chitosan based antimalarial drug delivery against *Plasmodium berghei* infection. ***Acta Tropica***, 128(3):494–503. DOI: 10.1016/j.actatropica.2013.07.011. ISSN:0001-706X(Print),1873-6254(Online). SCI; **IF: 3.112.**

39. Mukherjee AK, Gupta G, Adhikari A, Majumder S, **Kar Mahapatra S**, Majumdar SB, Majumdar S. (2012). Miltefosine triggers a strong proinflammatory cytokine response during visceral leishmaniasis: Role of TLR4 and TLR9. ***Int Immunopharmacol*.** April 12(4): 565–572. DOI:10.1016/j.intimp.2012.02.002. ISSN:1567-5769(Print), 1878-1705(Electronic). SCI; **IF: 4.932.**

40. Chakraborty SP, **Kar Mahapatra S,** Roy S, Roy S. (**2012**). Gutkha chewing induces oxidative disturbances and cellular DNA damage in humans. ***Toxicological and Environmental Chemistry***, Feb 94 (2):388–402. DOI: 10.1080/02772248.2011.639942. **ISSN:**0277-2248(Print), 1029-0486(Online). SCI; **IF:1.437**.

41. Chakraborty SP, **Kar Mahapatra S,** Roy S. (**2012**). In vitro time dependent vancomycin resistant *Staphylococcus aureus* induced free radical generation and status of antioxidant enzymes in murine peritoneal macrophage. ***Toxicol Mechanism Method***, Jan 22(1):9–22. doi: 10.3109/15376516.2011.583296. ISSN:1537-6516(Print),1537-6524(Online). SCI; **IF:2.987**.

42. **Kar Mahapatra S**, Chakraborty SP, Roy S. (2011) Immunomodulatory role of *Ocimum gratissimum* and ascorbic acid against nicotine-induced murine peritoneal macrophages *in vitro*. ***Oxidative Medicine and Cellular Longevity***. December, Volume 2011, Article ID 734319, 11 pages. doi:10.1155/2011/734319. ISSN:1942-0900(Print),1942-0994(Online). SCI; **IF:6.543.**

43. Banerjee S, Halder K, Bose A, Bhattacharya P, Gupta G, **Kar Mahapatra S**, Das S, Chowdhury S, Majumdar SB, Majumdar S. (2011). TLR signaling mediated differential histone modification at IL-10 and IL-12 promoter region leads to functional impairments in Tumor Associated Macrophages. ***Carcinogenesis***, December 32(12):1789–1797. DOI: 10.1093/carcin/bgr208. ISSN:0143-3334(Print),1460-2180(Online). SCI; **IF:5.702.**

44. **Kar Mahapatra S**, Chakraborty SP, Das S, Hati AK, Roy S. (2011). Prevalence of severe chloroquine resistance associates the point mutation in *pfcrt* and *pfmdrI* gene in eastern India. ***Asian Pacific Journal of Tropical Disease***. December 1(4): 263-269. DOI: 10.1016/S2222-1808(11)60062-5. ISSN: 2222-1808. SCI; **IF:1.32.**

45. Chakraborty SP, **Kar Mahapatra S**, Sahu SK, Das S, Tripathy S, Dash S, Pramanik P, Roy S. (**2011**). Internalization of Staphylococcus aureus in lymphocytes induces oxidative stress and DNA fragmentation: possible ameliorative role of nanoconjugated vancomycin. ***Oxidative Medicine and Cellular Longevity***. September, Volume 2011, Article ID 942123. DOI:10.1155/2011/942123. ISSN: 1942-0900(Print), 1942-0994(Online). SCI; **IF: 6.543**.

46. Chakraborty SP, **Kar Mahapatra S**, Sahu SK, Pramanik P, Roy S. (**2011**). Amelioratory Effect of Nanoconjugated Vancomycin on Spleen during VRSA-Induced Oxidative Stress. ***Pathology Research International***, Jul, Volume 2011:420198. DOI:10.4061/2011/420198. ISSN: 2090-8091(Print),2042-003X(Online).SCOPUS.

47. **Kar Mahapatra S**, Bhattacharjee S, Chakraborty SP, Majumdar S, Roy S. (**2011**). Alteration of immune functions and Th1/Th2 cytokines balance in nicotine-induced murine macrophages: Immunomodulatory role of eugenol and *N-acetylcysteine*. ***Int Immunopharmacol.*** April, 11(4):485–495. DOI: 10.1016/j.intimp.2010.12.020. ISSN:1567-5769(Print), 1878-1705 (Electronic). SCI; **IF:4.932.**

48. Chakraborty SP, **Kar Mahapatra S**, Das S, Roy S. (**2011**). Alteration of some cellular function in amikacin resistant Pseudomonas aeruginosa transfected macrophages-a time dependent approach. ***Asian Pacific Journal of Tropical Biomedicine***, December 1(6):482-487. DOI: 10.1016/S2221-1691(11)60105-6. ISSN: 2221-1691. SCI; **IF: 1.82.**

49. Chakraborty SP, **Kar Mahapatra S**, Roy S. (**2011**). Biochemical characters and antibiotic susceptibility of Staphylococcus aureus isolates. ***Asian Pacific Journal of Tropical Biomedicine***, June 1(3):212-216. DOI: 10.1016/S2221-1691(11)60029-4. ISSN:2221-1691. SCI; **IF: 1.82.**

50. Chakraborty SP, **Kar Mahapatra S**, Sahu SK, Chattopadhyay S, Pramanik P, Roy S. (**2011**). Nitric oxide mediated *Staphylococcus aureus* pathogenesis and protective role of nanoconjugated vancomycin. ***Asian Pacific Journal of Tropical Biomedicine***, April, 1(2):102-109. DOI: 10.1016/S2221-1691(11)60005-1. ISSN: 2221-1691. SCI; **IF: 1.82.**

51. Chakraborty SP, **Kar Mahapatra S**, Sahu SK, Pramanik P, Roy S. (**2011**). Antioxidative effect of folate-modified chitosan nanoparticles. ***Asian Pacific Journal of Tropical Biomedicine***, February, 1(1):29–38. DOI: 10.1016/S2221-1691(11)60064-6. ISSN: 2221-1691. SCI; **IF: 1.82.**

52. **Kar Mahapatra S**, Chakraborty SP, Roy S. (**2010**). Aqueous extract of *Ocimum gratissimum* Linn and ascorbic acid ameliorates nicotine-induced cellular damage in murine peritoneal macrophage. ***Asian Pac J Trop Med***, October, 3(10):775–782. DOI: 10.1016/S1995-7645(10)60186-1. ISSN:1995-7645. SCI; **IF: 1.772.**

53. Chakraborty SP, Sahu SK, **Kar Mahapatra S,** Santra S, Bal M, Roy S, Pramanik P. (**2010**). Nanoconjugated vancomycin: new opportunities for the development of anti-VRSA agents. ***Nanotechnology***, March 21:105103. DOI:10.1088/0957-4484/21/10/105103. ISSN: 0957-4484 (Print), 1361-6528(Online). SCI; **IF: 3.874**.

54. Gautam N, Das S, **Kar Mahapatra S**, Chakraborty SP, Kundu PK, Roy S. (**2010**). Age associated oxidative damage in lymphocytes. ***Oxidative Medicine and Cellular Longevity***, July 3 (4):275–282. ISSN: 1942-0900(print), 1942-0994(online). DOI: 10.4161/oxim.3.4.12860. SCI; **IF: 6.543.**

55. **Kar Mahapatra S**, Chakraborty SP, Majumdar S, Bag BG, Roy S. (**2009**). Eugenol protects nicotine-induced superoxide mediated oxidative damage in murine peritoneal macrophages in vitro. ***European Journal of Pharmacology***, November, 623(1-3):132–140. DOI: 10.1016/j.ejphar.2009.09.019. ISSN: 0014-2999(Print),1879-0712(Electronic). SCI, **IF:4.432**.

56. **Kar Mahapatra S,** Chakraborty SP, Das S, Roy S. (**2009**). Methanol extract of *Ocimum gratissimum* protects murine peritoneal macrophages from nicotine toxicity by decreasing free radical generation, lipid and protein damage, and enhances antioxidant protection. ***Oxidative Medicine and Cellular Longevity***, September, 2(4):222–230. DOI: 10.4161/oxim.2.4.9000. ISSN: 1942-0900(Print); 1942-0994(Online). SCI; **IF: 6.543.**

57. **Kar Mahapatra S**, Das S, Bhattacharjee S, Gautam N, Majumdar S, Roy S. (**2009**). *In vitro* nicotine induced oxidative stress in mice peritoneal macrophages: a dose dependent approach. ***Toxicology Mechanisms and Methods***, Feb 19(2):100–108. DOI: 10.1080/15376510802255184. ISSN:1537-6516 (Print), 1537-6524 (Online). SCI; **IF: 2.987**.

58. Neogy S, Das S, **Kar Mahapatra S,** Mandal N, Roy S. (**2008**). Amelioratory effect of *Andrographis paniculata* Nees on liver, kidney, heart, lung and spleen during nicotine induced oxidative stress. ***Environmental Toxicology and Pharmacology***, May 25(3):321–328. DOI: 10.1016/j.etap.2007.10.034. ISSN:1382-6689. SCI; **IF: 4.860**.

59. Das S, **Kar Mahapatra S,** Gautam N, Das A, Roy S. (2007). Oxidative stress in lymphocytes, neutrophils, and serum of oral cavity cancer patients: modulatory array of L-glutamine. ***Supportive Care in Cancer,*** December 15 (12):1399–1405. DOI: 10.1007/s00520-007-0266-3. ISSN:0941-4355(Print),1433-7339(Online). SCI; **IF: 3.603.**

National Journal Publication:

1. Chakraborty SP, **Kar Mahapatra S,** Bal M, Roy S. (**2011**). Isolation and *identification of Vancomycin Resistant Staphylococcus aureus from post operative pus sample.* ***Al Ameen Journal of Medical Sciences***, *April* 4(2):152–168. ISSN: 0974-1143**.** SCOPUS.

2. **Kar Mahapatra S,** Chakraborty SP, Roy S. (**2010**). *In vitro* time dependent nicotine-induced free radical generation and status of glutathione cycle in murine peritoneal macrophage. ***Al Ameen Journal of Medical Sciences,*** July 3(3):182–194**.** ISSN: 0974-1143. SCOPUS.

3. **Kar Mahapatra S**, Das S, Dey SK, Roy S. (**2008**). Smoking induced oxidative stress in serum and neutrophil of the university students. ***Al Ameen ournal of Medical Sciences,*** 1(1):20–31. ISSN: 0974-1143. SCOPUS.

<u>Publication Proceedings</u>: Total Thirty (38) abstracts were published in different national and international Symposiums and Conferences.

<u>INVITED LECTURE:</u>

- **Plenary lecture:** Eugenol Derived Immunomodulatory Molecules: A Future Prospect against Visceral Leishmaniasis. **Kar Mahapatra S***. In: International Conference On Antimicrobial Resistance, organized by CRID, SASTRA Deemed To Be University, Thanjavur, 19th – 20th January 2018.

- **Plenary lecture:** Andrographolide Re-Establishes Host Protective Immune Response in *Leishmania donovani*-Infected Macrophages. Authors: **Kar Mahapatra S***, Debnath J, Roy S. ICBH 2013, SASTRA Deemed To Be University, Thanjavur, 6th – 8th December 2013.

Papers presented in conferences/seminars etc. (by self or co-author)

International:

1. Sujatha S, Charan Raja MR, **Kar Mahapatra S***. ***Isolation and characterization of Arachis hypogea nut shell protein and its effects on macrophage activation and anti-leishmanial potential in vitro.*** Paper presented by student (poster). In: International conference on synergy of science (ICSS-2020), organized by School of Chemical and Biotechnology, SASTRA Deemed to be University, Thanjavur, Tamil Nadu, February 27th-29th 2020. Jayaraman A, Kumar A, Uppuluri KB, **Kar Mahapatra S***. ***Effect of BPMS22 antigen in M2 to M1 macrophage repolarization***. Paper presented by student (poster).

2. Kar A, Charan Raja MR, Srinivasan S, Jayaraman A, **Kar Mahapatra S*.** ***Intensification of Anti-leishmanial Efficacy of Amphotericin B in Combination with Comp. 35 in Experimental Visceral Leishmaniasis.*** Paper presented by student (poster). In: International conference on contemporary innovative issues and Future challenges in Physiology and Allied Sciences (ICCIIFCPAS-2020), organized by Department of Human Physiology with Community Health, Vidyasagar University, Midnapore, West Bengal, January 21st – 22nd, 2020. **(2nd Prize in Best Poster to A. Kar)**.

3. **Eugenol Derived Immunomodulatory Molecules: A Future Prospect against Visceral Leishmaniasis. Kar Mahapatra S***. **Plenary Lecture.** In: International Conference on Antimicrobial Resistance, Organized by CRID, SASTRA Deemed To Be University, Thanjavur, 19th – 20th January 2018. Sujatha S, Charan Raja MR, **Kar Mahapatra S***. **Effect of Liposomal Acetyl Shikonin against Experimental Visceral Leishmaniasis** (**Best Poster Awarded to Sujatha S**).

4. **SEL-7 induces host protective immune response against Viseral leishmaniasis in BALB/c mice**. Charan Raja MR, Velappan AB, Debnath J, and **Kar Mahapatra S***. Paper presented by student (Poster). In: 104th Indian Science Congress; Section of Medical Sciences (Including Physiology), Organized by S.V. University, Tirupati, 3rd to 7th Jan, 2017.

5. **Acetyl shikonin in liposome rectify Th1/Th2 cytokines balance to cure the experimental visceral leishmaniasis. Kar Mahapatra S***. In: 104th Indian Science Congress; Section of Medical Sciences (Including Physiology), Organized by S.V. University, Tirupati, 3rd to 7th Jan, 2017.

6. **'SNP-AGP' activated macrophages to cure visceral leishmaniasis. Kar Mahapatra S***. **Oral presentation** at International Conference on Materials for Sustainable Future (ICMSF) 2016, SASTRA Deemed To Be University, Thanjavur, India; 14th-15th July 2016.

7. **'SNP-AGP' rectifies the immunological patterns of macrophages to induce nitric oxide-mediated anti-leishmanial activity.** Charan Raja MR, Vinod Kumar V, Naresh Kumar C, Sujatha S, Philip Anthony S, and **Kar Mahapatra S***. Paper presented by student (poster). In: **ICFNN 2016**, organized by CeNTAB, SASTRA Deemed To Be University, Thanjavur, India.

8. **Immunomodulatory Potential of Acetyl Shikonin against Leishmanial Infection.** Charan Raja MR, Shankar S, Aravind S, and **Kar Mahapatra S***. Paper presented by student (poster). In: 103rd Indian Science Congress; Section of Medical Sciences (Including Physiology), Organized by University of Mysore, 3rd to 7th Jan, 2016.

9. **"SNP-Ap-AGP: A novel immunomodulatory therapeutic against leishmanial infection"**. **Kar Mahapatra S*** and Charan Raja MR. (Oral presentation) at **103rd Indian Science Congress**; Section of Medical Sciences (Including Physiology), Organized by University of Mysore 3rd to 7th Jan, 2016.

10. **Andrographolide Re-Establishes Host Protective Immune Response in *Leishmania donovani*-Infected Macrophages.** Authors: **Kar Mahapatra S***, Debnath J, Roy S. **Plenary lecture** at ICBH 2013, SASTRA Deemed To Be University, 6th – 8th December 2013.

11. **Kar Mahapatra, S.,** Paul Chowdhury, B., Bhattacharya, P., Majumdar, S.B., Majumdar, S. Modulation of CD8+ T cells activity during Ara-LAM treatment against experimental Visceral leishmaniasis. 81st Annual meeting of the SBC (I) and symposium on Chemistry & Biology: Two weapons against Diseases. Nov 8-11 2012. Science city, Kolkata.
12. Paul Chowdhury, B., **Kar Mahapatra, S.,** Bhattacharya, P., Bhattacharjee, A., Majumdar, S.B., Majumdar, S. **Arabinosylated lipoarabinomannan – mediated modulation of IFN-γ downstream signaling in visceral leishmaniasis.** In: 2nd International Conference on "Perspective of Cell Signaling and Molecular Medicine" Organized by Bose Institute, Kolkata, West Bengal, India, on 8th – 11th January 2012.
13. Roy, S., **Kar Mahapatra, S.**, Hati, A.K. **"Molecular approach for monitoring drug resistant *Plasmodium falciparum* in Kolkata".** In: 97th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by University of Kerala, Thiruvananthapuram, Kerala on 3rd – 7th Jan 2010.
14. **Kar Mahapatra, S.**, Bhattacharyya, S., Chakraborty, S.P., Majumdar, S., Roy, S. **Immunomodulatory role of *Ocimum gratissimum* Linn. and eugenol in Th1 – Th2 cytokine regulation in nicotine – induced murine peritoneal macrophage.** In: 97th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by University of Kerala, Thiruvananthapuram, Kerala on 3rd – 7th Jan 2010.
15. **Kar Mahapatra, S.**, Roy, S., Chakraborty, S.P., Chatterjee, S., Roy, S. **Study of lipid peroxidation and antioxidant status in serum and lymphocyte of the gutkha chewers.** In: 97th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by University of Kerala, Thiruvananthapuram, Kerala on 3rd – 7th Jan 2010.
16. Chakraborty, S.P., Kar Mahapatra, S., Chattopadhyay, S., Bal, M., Roy, S. **Antibiotic emergence pattern of isolated Staphylococcus aureus strains.** In: 97th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by University of Kerala, Thiruvananthapuram, Kerala on 3rd – 7th Jan 2010.
17. **Kar Mahapatra, S.**, Bhattacharyya, S., Chakraborty, S.P., Majumdar, S., Roy, S. **"Involvement of the mitochondrion-dependent pathway in the nicotine-induced apoptosis of murine peritoneal macrophages: Antiapoptotic role of *Ocimum gratissimum* Linn".** In: International Conference on integrative Physiology: Modern Perspective & Platinum Jubilee Celebration of the Physiological Society of India; Organized by Physiological Society of India, Science City Convention Centre, Kolkata, India on 12th – 14th November 2009.
18. Roy, S., Chakraborty, S.P., **Kar Mahapatra, S.**, Bal M., Pramanik, P. **"Nano-conjugated vancomycin: A new opportunity to treat VRSA".** In: International Conference on integrative Physiology: Modern Perspective & Platinum Jubilee Celebration of the Physiological Society of India; Organized by Physiological Society of India, Science City Convention Centre, Kolkata, India on 12th – 14th November 2009.
19. Chakraborty, S.P., **Kar Mahapatra, S.**, Santra, S., Pramanik, P., Roy, S. "**Chitosan-EDBA-Folate, a non-toxic nanoparticle has protective role against nicotine-induced toxicity".** In: International Conference on integrative Physiology: Modern Perspective & Platinum Jubilee Celebration of the Physiological Society of India; Organized by Physiological Society of India, Science City Convention Centre, Kolkata, India on 12th – 14th November 2009.
20. Chakraborty, S.P., **Kar Mahapatra, S.**, Gautam, N., Roy, S. **"Susceptibility pattern of *Staphylococcus aureus* strains against vancomycin".** In: 96th Indian Science Congress; Section of Medical Sciences

(Including Physiology); Organized by North-Eastern Hill University, Shillong, Meghalaya on 3rd – 7th Jan 2009.

21. **Kar Mahapatra, S.,** Chakraborty, S.P., Gautam, N., Roy, S. "**Immunomodulatory role of *Ocimum gratissimum* Linn. in nicotine induced alteration in defense mechanism in murine peritoneal macrophage".** In: 96th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by North-Eastern Hill University, Shillong, Meghalaya on 3rd – 7th Jan 2009.
22. Roy, S., **Kar Mahapatra, S. "Nicotine induced apoptosis in murine macrophages: An amelioratory array of *Ocimum gratissimum* Linn."** In: 96th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by North-Eastern Hill University, Shillong, Meghalaya on 3rd – 7th Jan 2009.
23. Gautam, N., **Kar Mahapatra, S.**, Chakraborty, S.P., Kundu, P.K., Roy, S. **"Age associated oxidative damage in serum".** In: 96th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by North-Eastern Hill University, Shillong, Meghalaya on 3rd – 7th Jan 2009.
24. **Kar Mahapatra, S.,** Das, S., Gautam, N., De, S., Roy, S. **"Nicotine induced alteration in defense mechanism in murine peritoneal macrophage".** In: 95th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by Andhra University, Visakhapatnam, Andhra Pradesh on 3rd – 7th Jan 2008.
25. Das, S., Gautam, N., **Kar Mahapatra, S.,** De, S., Roy, S. **"*Andrographis paniculata* Nees suppress the nicotine induced apoptosis via Akt and cytochrome c mediated pathway in rat T-lymphocytes".** In: 95th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by Andhra University, Visakhapatnam, Andhra Pradesh on 3rd – 7th Jan 2008.
26. Gautam, N., Das, S., **Kar Mahapatra, S.,** De, S., Kundu, P.K., Roy, S. **"Age associated oxidative damage in RBC".** In: 95th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by Andhra University, Visakhapatnam, Andhra Pradesh on 3rd – 7th Jan 2008.
27. De, S., Das, S., Gautam, N., **Kar Mahapatra, S.,** Roy, S. **"Assessment of the quality and potability of drinking water of Medinipur town".** In: 95th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by Andhra University, Visakhapatnam, Andhra Pradesh on 3rd – 7th Jan 2008.
28. **Kar Mahapatra, S.,** Das, S., Gautam, N., Roy, S. **"In vitro study of nicotine induced oxidative stress in peritoneal macrophage in mice".** In: 94th Indian Science Congress; Section of Medical Sciences (Including Physiology); Organized by Annamalai University, Tamil Nadu on 3rd – 7th Jan 2007.
29. Das, S., Gautam, N., **Kar Mahapatra, S.,** Neogy, S., Maiti Chowdhury, S., Roy, S. **"Suppression of nicotine induced oxidative stress in heart, lung and spleen by aqueous extract of *Andrographis paniculata*".** In: 94th Indian Science Congress; Section of Medical Sciences (Including Physiology), Organized by Annamalai University, Tamil Nadu on 3rd – 7th Jan 2007.
30. N. Gautam, Subhasis Das, **Santanu Kar Mahapatra,** P. K. Kundu and Somenath Roy. **"Age associated oxidative damage in lymphocyte".** In: 94th Indian Science Congress; Section of New Biology, Organized by Annamalai University, Tamil Nadu On 3rd – 7th Jan 2007.
31. Neogy, S., Das, S., **Kar Mahapatra, S.,** Roy, S**. Ameliorative effect of *Andrographis paniculata* Nees on heart, lungs and spleen during nicotine induced oxidative stress**. In: XVIII Annual Conference Physiological Society of India; Organized by Presidency College, Kolkata on 8th – 10th Dec 2006.
32. Dey, S.K., **Kar Mahapatra**, S., Das, S., Roy, S. **"Effect of smoking on the free radical scavenger system of university students".** In: International Conference on Free Radicals and Antioxidants in Health Disease and Radiation; 5th Annual Conference of Society for free radical research India; Organized by SFRR-India, Science City, Kolkata on 16 – 18th Jan 2006.

National:

1. **Kar Mahapatra S***. ***Promising effect of nut shell protein in the treatment of visceral leishmaniasis.*** Oral Presentation. CRID Annual Talk 2019. Organized by CRID, SASTRA Deemed To Be University, Thanjavur, 10th – 11th September 2019.

2. **Immunostimulatory potential of plant derived glycoprotein Ap-AGP.** Chattopadhyay S, Charan Raja MR, Roy S, **Kar Mahapatra S*.** Paper presented by co-author (poster). **In:** UGC Sponsored National Seminar on "Current Trends of Research in Human Physiology and Community Health", organized by Department of Human Physiology with Community Health, Vidyasagar University, Midnapore, West Bengal, March 27th, 2015.
3. Bhattacharya, P., Banerjee, S., Halder, K., Das, S., **Kar Mahapatra, S.,** Majumdar, S. **Arabinosylated lipoarabinomannan – mediated protection in visceral leishmaniasis through upregulation of toll-like receptor 2 signalling: an immunoprophylactic approach.** In: "Frontiers in chemical biology". Organized by SBC (I), Kolkata at Shankarpur, West Bengal on 22nd – 24th April 2011.
4. **Kar Mahapatra, S.**, Bhattacharyya, S., Chakraborty, S.P., Majumdar, S., Roy, S. **"*Ocimum gratissimum* Linn modulate nicotine-induced inflammatory response in murine peritoneal macrophage".** In: Current Trends in Biological Science"; Organized by SBC (I), Kolkata at Digha on 4th – 6th September 2009.
5. Chakraborty, S.P., **Kar Mahapatra, S.**, Gautam, N., Santra, S., Biswas, S., Roy, S. "**Isolation and identification of *Staphylococcus aureus* from post-operative pus sample**". In: UGC Sponsored National Seminar on "Current Trends of Researches in Health and Diseases"; Organized by Dept. of Human Physiology with Community Health, Vidyasagar University on 30 – 31st March 2009.
6. Das, S., Das, J., **Kar Mahapatra, S.,** Roy, S. **"Effect of Fenugreek seed on blood sugar level in diabetes mellitus".** In: National Seminar on Home Science for Better Living in the Present Era; Organized by Department of Home Science, Viharilal College, University of Calcutta, Kolkata on 06 – 08th Dec 2006.

Webinar Attended:

1. Participated International Webinar on "Current Trends in Neuroimmune Pharmacology". Organized by Dept. of Paramedical & Allied Health Sciences, Midnapore City College, Midnapore, West Bengal, India on 5th August 2021.
2. Participated National Webinar on "Online education & rural students: implications & It's limitations". Organized by Dept. of Education, Midnapore City College, Midnapore, West Bengal, India on 29th July 2021.
3. Participated Webinar on "Survival games played by bacteria". Organized by School of Chemical and Biotechnology, SASTRA Deemed to be university, Thanjavur, Tamil Nadu, India on 14th May 2020.
4. Participated Webinar on "Post COVID-19: Resurgence of Indian Industry and R&D". Organized by SRM University –AP, 15th May 2020.
5. Participated Webinar on "Choices and current treands in drug product development". Organized by School of Chemical and Biotechnology, SASTRA Deemed to be university, Thanjavur, Tamil Nadu, India on 19th May 2020.
6. Participated Webinar on "Life with natural products". Organized by School of Chemical and Biotechnology, SASTRA Deemed to be university, Thanjavur, Tamil Nadu, India on 22nd May 2020.
7. Participated Webinar on "Antifungal drug resistance and management". Organized by School of Chemical and Biotechnology, SASTRA Deemed to be university, Thanjavur, Tamil Nadu, India on 23rd May 2020.
8. Participated Webinar on "mRNA Technology for Infectious Diseases: Therapeutic Applications and Vaccine Development". Organized by ACS, 28th May 2020.
9. Participated Webinar on "Post COVID-19: Science and Technology". Organized by SRM University –AP, 29th May 2020.
10. Participated Webinar on **"**Harnessing the Tumor Immune Microenvironment", Organized by Cell press on 11th June 2020.
11. Participated Webinar: 2020 ASBMB Annual Meeting Virtual Spotlight: Glycobiology, June 23, 2020.

12. Participated Webinar: 2020 ASBMB Annual Meeting Virtual Spotlight: Lipids in Inflammation, June 30, 2020.
13. Participated Webinar on "What did we learn from the genomes of SARS-CoV-2 isolates?" Organized by CRID, School of Chemical and Biotechnology, SASTRA Deemed to be university, Thanjavur, Tamil Nadu, India on 2nd July 2020.
14. Participated Webinar on "Therapies and Vaccine Development for Emerging and Re-emerging Diseases", Organized by Cell press on 4th August 2020.

PARTICULARS OF EXTRACURRICULAR ACTIVITIES:

Collaboration:

1. Dr. Joy Debnath, Senior Assistant Professor, Department of Chemistry, SASTRA Deemed To Be University, Thanjavur, India.
2. Dr. Vadivel V. Assistant Professor Research, SASTRA Deemed To Be University, Thanjavur, India.
3. Dr. Subbiah Rajasekaran, Department of Biochemistry, ICMR-National Institute for Research in Environmental Health, Kamla Nehru Hospital Building, Gandhi Medical College Campus, Bhopal, Madhya Pradesh, India.
4. Dr. Ravi Kasiappan, Academy of Scientific and Innovative Research (AcSIR) CSIR-Central Food Technological Research Institute, Mysuru-570020, India.
5. Dr. Sumanta Kumar Sahu, Assistant Professor, Department of Applied Chemistry, Indian Institute of Technology (ISM), Dhanbad, India.

Reviewer of Referred Journals:

Regular reviewer of several SCI-indexed journals.

Life Member:

1. Indian Science Congress Association (L12490).
2. Society of Biological Chemist (India) (2564).
3. Indian Society of Systems for Science and Engineering (ISSE) (LM05600).

Statement: I certify that the information provided in this Curriculum Vita is accurate to the best of my knowledge.

Date: 09.11.2021

Santanu Karmakar