




Faculty Details proforma for Gargi College

Title	Dr.	First Name	RASHMI	Last Name	SAINI	
Designation	ASSISTANT PROFESSOR					
Address	201, TOWER 18 COMMONWEALTH GAMES VILLAGE NEAR AKSHARDHAM TEMPLE EAST DELHI-110092					
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Email	dr.rashmisaini@gmail.com , rashmi.saini@gargi.du.ac.in					
Web-Page	https://gargicollege.in/faculty/dr-rashmi-saini					
Educational Qualifications						
Degree	Subjects			Institution		Year
B.Sc	ZOOLOGY, BOTANY, CHEMISTRY			UNIVERSITY OF LUCKNOW, LUCKNOW		1998
M.Sc	ZOOLOGY			UNIVERSITY OF LUCKNOW , LUCKNOW		2000
PhD	LIFE SCIENCES " STUDIES ON NITRIC OXIDE SYNTHASE AND ITS ASSOCIATED PROTEINS IN THE REGULATION OF BLOOD CELL FUNCTIONS"			CENTRAL DRUG RESEARCH INSTITUTE (CDRI), LUCKNOW REGISTERED AT JAWAHARLAL NEHRU UNIVERSITY (JNU), NEW DELHI		2007
Career Profile						
<ul style="list-style-type: none"> • 2015- Present Assistant Professor, Department of Zoology, Gargi College, University of Delhi, Delhi, India. • 2013-2015 Assistant Professor, Department of Zoology, School of Biological Sciences, Dr. Harisingh Gour Central University, Sagar (MP), India. • 2011-2013 Research Associate, Department of Radioprotective Drug Development Research Institute of Nuclear Medicine and Allied Sciences (INMAS) Defence Research & Development Organization (DRDO), New Delhi, India • 2010-2011 Postdoctoral Researcher, Molecular Biology Laboratory Centre of Hematology and Hemotherapy (HEMOCENTRO), University of Campinas (UNICAMP), Sao Paulo, Brazil • 2000-2001 Project Affiliate, Department of Preventive Toxicology Immunobiology, Indian Institute of Toxicology Research (CSIR-IITR), Lucknow, India 						

Administrative Assignments
<ul style="list-style-type: none"> • Teacher Mentor- Undergraduate students, Gargi College, University of Delhi. • Course Coordinator – Undergraduate Core course, General Electives (GE) and Skill Enhancement Courses (SEC) • Member, Admission Committee-2016 (BSc Life Sciences) Gargi College, • Member, Placement and Career Counselling Committee (Placement Cell) • Member, Office Bearer Committee, Department of Zoology, 2016-2020 • Member, National Social Services (NSS), Gargi College, University of Delhi. • Examiner, Undergraduate examinations, University of Delhi.
Areas of Interest / Specialization
Cell and Molecular Biology, Free Radical Biology, Entomology
Subjects Taught
<p><u>Core Courses:</u></p> <p>Molecular Biology, Cell Biology, Comparative anatomy of Vertebrates, Physiology, Animal Diversity, Developmental Biology, Entomology</p>
<p><u>General Elective Courses (GE):</u> Human Physiology, Free Radical Biology</p> <p><u>Skill Enhancement Courses (SEC):</u> Medical Diagnostics, Research Methodology</p>
Research Publications
<p>Research Publications in peer reviewed international journals:</p> <ol style="list-style-type: none"> 1. Rashmi Saini, Zafar Azam, Leena Sapra, Rupesh K Srivastava. Neuronal nitric oxide synthase (nNOS) in neutrophils: an insight. <i>Reviews of Physiology, Biochemistry and Pharmacology</i>, 2021 (Under Revision) 2. Rashmi Saini and Sarika Singh. Inducible Nitric Oxide Synthase: An asset to Neutrophils. <i>Journal of Leukocyte Biology</i>, 105(1), 49-61, 2019. 3. Rashmi Saini. Nitric oxide (NO): Implications on fertilization potential of Spermatozoans. <i>ISSRF Newsletter</i> 24, 93-95, 2019. ISSN2395-2806 4. Neena K. Dhiman, Anjali Deswal, Dharvi Mahajan, Shashi Tyagi and Rashmi Saini. Assessing the effectiveness of <i>Coriander sativum</i>, <i>Mentha piperita</i> and <i>Thinopyrum intermedium</i> in remediation of waters with heavy metal toxicity. <i>International Journal of Current Research</i>, 11(4) 2995-2998, 2019. 5. Neena Kumar, Dharvi Mahajan, Anjali Deswal and Rashmi Saini. Qualitative Assessment of Physicochemical Parameters of Harvested Rainwater in different regions of National Capital Territory (NCT) and NCR. <i>Peripex: Indian Journal of Research</i>, 7 (10) 474-475, 2018. 6. Neena Kumar, Rashmi Saini, Khushboo Chaudhary, Muskaan Bansal, Kanika and Namrata Pandey. Correlation between toxic stress by heavy metal toxicants and periphytic protozoan colonization rates. <i>International Journal of Advanced Research</i>, 5 (5), 529-534, 2017. 7. Rashmi Saini and Neena Kumar. Global Climate Change and Aquatic Ecosystem: Potential Impacts and Challenges. <i>International Journal of Current Research</i> 9(8), 56336-56342, 2017.

8. Neena Kumar and Rashmi Saini. Post-Disaster Epidemics: Possibilities and Prevention. *Paripex: Indian Journal of Research (PIJR)*, 6(7), 22-25, 2017.
9. Rashmi Saini, Shilpy Shakya. Herbs and botanical ingredients with beneficial effects on blood sugar levels in pre-diabetes. *Herbal Medicine. iMedPub Journals. Vol 2(1)*, 1-11. ISSN- 2472-0151, 2016.
10. Savita Verma, Bhargab Kalita, Rashmi Saini, Manju L Gupta. Ameliorative effects of active principles of *Podophyllum hexandrum* against ionizing radiation induced oxidative stress in liver and lung tissues of Strain 'A' mice. *Oxid. Antioxid. Med. Sci.* 3(1), 51-64. ISSN- 2146-8389, 2014.
11. Rashmi Saini, Savita Verma, Abhinav Singh, Manju L Gupta. Role of active principles of *Podophyllum hexandrum* in amelioration of radiation mediated lung injuries by ROS/RNS reduction. *CellBio*, 2, 105-116. ISSN-2325-7776, 2013.
12. Rohit Saluja, Rashmi Saini, V.K. Bajpai, and M. Dikshit. Ultrastructural localization of nitric oxide synthase isoforms in rat and human eosinophils. *Cell and Tissue Research* 340, 381-388. (IF-3.1) ISSN- 1432- 0878, 2010.
13. Rashmi Saini, S Patel, R Saluja, A. A. Sahasrabudhe, M. P. Singh, S. Habib, V. K. Bajpai, and M. Dikshit. Nitric oxide synthase localization in the rat neutrophils: immunocytochemical, molecular and biochemical studies. *Journal of Leukocyte Biology* 79, 519-528. (IF- 4.99) ISSN- 1938-3673, 2006.
14. Rashmi Saini, V.K. Bajpai, and M. Dikshit (2005). Characterization and localization of nitric oxide synthase in rat polymorphonuclear leukocytes. *Natural Antioxidants and Micronutrients*, 67-71.
15. Prashant Sharma, S.A.V. Raghavan, Rashmi Saini and Madhu Dikshit. Ascorbate-mediated enhancement of reactive oxygen species generation from polymorphonuclear leukocytes: modulatory effect of nitric oxide. *Journal of Leukocyte Biology*, 75, 1070-1078. (IF- 4.99) ISSN- 1938-3673, 2004.

Book Chapters:

1. Rashmi Saini. (2017). Impacts of Climate Change on Aquatic Ecosystems. Book: *Climate Change and Disaster Management*. Centre for Professional Development in Higher Education UGC-HRDC, University of Delhi, New Delhi. Chapter 25, 253-261. ISBN: 978-81-934519-5-3
2. Rashmi Saini and Sachin L. Badole. Bioactive Compounds Increase Incretins with Beneficial Effects on Diabetes. Book: *Glucose Intake and Utilization in Pre-Diabetes and Diabetes: Implications for Cardiovascular Disease*. Chapter 28, 349-353, 2015.
3. Rashmi Saini, Badole SL, Zanwar A. L-Arginine derived Nitric oxide: Key to Healthy Skin. *Bioactive Dietary Factors and Plant Extracts in Preventive Dermatology*, Editor Ronald Ross Watson and Sherma Zibadi, New York. Springer press publisher, Chapter 8, 73-82. ISBN- 1627031669, 2013.
4. Rashmi Saini, Badole SL, Zanwar A. Ascorbic Acid (Vitamin C): Antioxidant involved in treatment of skin cancer. *Bioactive Dietary Factors and Plant Extracts in Preventive Dermatology*, Editor Ronald Ross Watson and Sherma Zibadi, New York. Springer press publisher. Chapter 6, 61-66. ISBN- 1627031669, 2013.
5. Zanwar A, Badole SL and Rashmi Saini. Role of *Emblica officinalis* in prevention of skin diseases. *Bioactive Dietary Factors and Plant Extracts in Preventive Dermatology*, Editor Ronald Ross Watson and Sherma Zibadi, New York. Springer press publisher. Chapter 40, 439-444. ISBN- 1627031669, 2013.
6. Zanwar A, Badole SL and Rashmi Saini. *Withania somnifera*, use for skin disease. *Bioactive Dietary Factors and Plant Extracts in Preventive Dermatology*, Editor Ronald Ross Watson and Sherma Zibadi, New York. Springer press publisher. Chapter 47, 487-491. ISBN- 1627031669, 2013.
7. Rashmi Saini, Madhumita Chatterjee, and Madhu Dikshit. Neutrophil nitric oxide synthase: functional, biochemical and molecular perspective. *Current Trends in Pharmacology*. Editor A. Ray & K. Gulati. IK International, New Delhi. Chapter 22, 327-365. ISBN- 9788188237777, 2006.

Patent:

Patent Granted "Flexible Mice Restainer For Hind Limb Tumor Radiation Exposure". Indian Patent Office, New Delhi. 2014 Intellectual Property Agency, INDIA, 2014

Patent Application No. 2634/DEL/2013 Dt. 23 Sep 2013, Patent File No 255713

Invited Talks:

- Lecture Delivered "Correlation of Toxic Stress by Lead and Cadmium on Periphytic ciliate Colonization rates" in The National Seminar on Science and Technology for National Development. The Indian Science Congress Association – Sagar Chapter at Dr. Harisingh Gour University, Sagar, M.P. Sept 24, 2016.
- Invited Lecture "Amelioration of Nitric oxide (NO) bioavailability after hydroxyurea treatment in explants culture of murine aortic endothelial cells (MAEC) of Sickle Transgenic Cell mice" National Conference On Evolving Trends in Biotechnology Department of Biotechnology, Dr. Harisingh Gour Central University, Sagar, MP

ABSTRACTS PUBLISHED IN JOURNALS:

- Rashmi Saini and Neena Kumar (2016). Correlation of Toxic Stress by Lead and Cadmium on Periphytic ciliate Colonization rates. The Indian Science Congress Association (ISCA- Sagar Chapter). Proceeding of The National Seminar on Science and Technology for National Development. Sept 23-24,14.
- Neena Kumar, Rashmi Saini, Khushboo Choudhary, Muskan Bansal, Kanika and Namrata Pandey (2016) Study of Impact of Toxic Stress on Population Colonization Rates in Fresh Water Protozoans. National Conference on Combating Industrial Pollution for Sustainable Environment (CIPSE-2016), Sept 22-23, 66.
- Rashmi Saini. (2016) Effects of Antioxidants on Oxidative-Nitrosative Stress Mediated Pathophysiology of Diabetes. National Seminar on Recent Initiatives in Higher Education, Feb 20-21, 41-42.
- Satyaprakash Beriaya and Rashmi Saini. Modulation of the Intracellular compartmentalization of Nitric Oxide Synthase Isoforms in the Sickle cell disease by Hydroxyurea Therapy. International Conference on Energy Environment & Life Science for Sustainable Future (ICEELSSF) & National Science Day Celebration, at Swami Vivekanand University, Sagar (MP), India. 28 Feb - 1 March, 2014
- Rashmi Saini, Savita Verma, Manju L Gupta (2012). Restoration of radiation inflicted damage to pulmonary system of mice by Podophyllum hexandrum mediated reactive nitrogen species (RNS) reduction. Cancer Research and Therapeutics, 8(3), 494. (IF- 0.6) ISSN- 0793-1483
- Savita Verma, Rashmi Saini, Manju L Gupta (2012). Ameliorative effects of Podophyllum hexandrum on radiation inflicted injuries to hematopoietic system of mice. Cancer Research and Therapeutics, 8(3), 494. ISSN- 0793-1483
- Rashmi Saini, Nicola Conran, Fernando F. Costa (2011) Effect of Tetrahydrobiopterin on real time Nitric Oxide (NO) and Reactive Oxygen Species (ROS) generation in neutrophils of Sickle cell disease patients with and without hydroxyurea therapy. Hematologica, 96 (2), 302.(IF- 6.5) ISSN- 1592-8721
- Sachin Kumar, Rashmi Saini, and Madhu Dikshit. Status of nitric oxide synthase in bone marrow neutrophils during maturation and their correlation with free radical generation. Emerging Trends in Free Radical and Antioxidant Research: Third Meeting of the Society for Free Radical Research -Asia (SFRR-Asia) & Sixth annual meeting of Society for Free Radical Research-India (SFRR-India), Lonavala, India. Jan 8-11, 2007.
- Rashmi Shakya, A.A. Sahasrabuddhe, V. K. Bajpai and M. Dikshit (2003) Intracellular Localization of Nitric Oxide Synthase in Immature and Mature Rat Neutrophils: A Biochemical and Immunocytochemical study. Medicinal Chemistry Research, 12, 334-335. (IF- 3.16) ISSN- 1554-8120

Conference Organization/ Presentations (Previous 5 yrs)

- Participated in One Week FDP on “E-content Generation and Managing Online Teaching” organized by Sri Aurobindo College (E), and Mahatma Hansraj Faculty Development Centre (MHRFDC), Hansraj College, University of Delhi, 11-17 Dec, 2020.
- Participated in One Week FDP on “Skills for Next Generation Teachers” organized by Vimala College, Thrissur, Kerela, Guru Angad Dev Teaching Learning Center SGTB Khalsa College, University of Delhi and Jean Monnet Module, Center of European Studies, JNU, New Delhi, 01-07, 2020.
- Attended NEUROEUNOIA 2020: A NEUROSCIENCE AFFAIR, International e-conference sponsored by Indian Academy of Neurosciences, 16-17 Oct, 2020.
- Participated in National Webinar entitled “Promotional Avenues for Teachers in Higher Education: CAS Regulations-2018” organized by Guru Angad Dev TLC, SGTB Khalsa College, University of Delhi, under PMMMNMTT of MHRD, on 5 Sept, 2020.
- Participation in e-workshop on Research Article Writing organized by PharmaState Academy on 23 Aug, 2020.
- Participation in Research Proposal Writing e-Workshop organized by PharmaState Academy on 13 Aug, 2020.
- Participated in Two Weeks FDP on “Advanced Concepts for Developing MOOCS” organized by Teaching Learning Centre (TLC) - Ramanujan College, University of Delhi, Delhi MHRD (PMMMNMTT), 02-17 July, 2020.
- Participated in webinar on “Application of Bioinformatics in Drug Discovery” organized by Faculty of Engineering, Department of Biotechnology, Karpagam Academy of Higher Education, Coimbatore, 3 July, 2020.
- Participation in webinar on “Entomology in Criminal Investigations” organized by Department of Zoology, Gargi College, University of Delhi, Delhi on 22 Aug, 2020.
- Participation in webinar on “Immunology of Covid-19” organized by Department of Zoology, Gargi College, University of Delhi, Delhi on 5 Aug, 2020
- Participation in “Faculty Development Programme (FDP) on Design, Develop, and Deliver Online Courses” organized by National Institute of Educational Planning and Administration (NIEPA), New Delhi 22-26 June, 2020.
- Participation in National Webinar Series (NWS)-2020 on “Immunity and Infection: Biochemical approaches to therapies” organized by Society of Biological Chemists, Davengere Branch & Department of Biochemistry, Davangere University, Davangere, Karnataka. 15-21 June, 2020.
- Attended Faculty Development Programme (FDP) on “Artificial Intelligence and Data Science” organized by Department of Information Technology, Oriental Institute of Science & Technology, Bhopal. 10-14 June, 2020.
- Attended the Refresher Course in “Research Methodology” at UGC-HRDC, Jawaharlal Nehru University, New Delhi during Oct 14-26, 2019.
- Attended the 2nd Task Force meet under DBT Star College Scheme, Ministry of Science & Technology and Gargi College, University of Delhi, Delhi. May 8-9, 2018.
- Participated in the “National Conference on the Technological Empowerment of Women” organized by National Academy of Sciences (NASI), on the occasion of International Women's Day, at Vigyan Bhavan, New Delhi on March 8-9, 2018.
- Participated in National Seminar sponsored by NAAC “Mentoring the Teachers-Mentors: Capacity Building Programme” organized by Internal Quality Assurance Cell (IQAC), Gargi College, University of Delhi, Delhi, Jan 19- Jan 20, 2018.
- Attended Science Academic Lecture workshop on “Ingenuity in Biological Sciences”, organized by Department of Zoology, Gargi College, University of Delhi Delhi, Jan 11- Jan 12, 2018.
- Attended the workshop on “What is Plagiarism and How to avoid it” at Gargi College, University of Delhi, Delhi, Oct 13, 2017.
- Participated in Symposia on “Art of Grant Writing” held under the DBT Star college scheme at Department of

Zoology, Miranda House, University of Delhi, 5th & 6th January, 2017.

- Attended the workshop on “Research Matrices: Impact factor and h-Index” held at Gargi College, University of Delhi, Delhi, March 9, 2017.
- Participated in the conference and presented poster in the National Seminar on Science and Technology for National Development (ISCA-Sagar chapter), Sept 23-24, 2016.
- Paper presentation in CIPSE-2016 held at Gargi College, University of Delhi, Delhi on Sept 22-23, 2016.
- Participated in the workshop named SCIENCE SETU on “DNA FINGERPRINTING” held at Hindu College, University of Delhi, Delhi on 22 Jan, 2016.

Research Projects (Major Grants/Research Collaboration)

- Research Project on “Ascorbate mediated defence mechanism of oxidative stress enzymes in E.coli against sulfonylurea herbicides” under the DBT Star College Scheme, Gargi College, University of Delhi, Delhi. (2019-ongoing).
- Research Project on “Potential use of *Thinopyrum intermedium*, *Coriander sativum* and *Mentha piperita* for bioremediation of heavy metals contaminated water” under the DBT Star College Scheme, Gargi College, University of Delhi, Delhi. (2017- 2018).
- Research Project on “Qualitative assessment of physicochemical parameters of harvested rainwater in different regions of National Capital Territory (NCT) and NCR” under the DBT Star College Scheme, Gargi College, University of Delhi, Delhi. (2016- 2017).
- Research Project on “Correlation of toxic stress on population colonization rates in fresh water protozoans” under the DBT Star College Scheme, Gargi College, University of Delhi, Delhi. (2015- 2016).
- UGC-BSR StartUp Grant (6 Lakhs) 2014-2016 for the Research work on “Studies on modulatory effects of ascorbate on Reactive Nitrogen Species (RNS) mediated pathophysiology of diabetes”(2014-2016).

Awards and Distinctions

- WOMEN RESEARCHER AWARD in the International Scientist Awards on Engineering, Science and Medicine, organized by VDGGOOD Professional Association, Salem India, 8-9 Jan, 2021
- InSc Research Excellence Award- 2020 by Institute of Scholars, an ISO certified Institute by International Accurate Certification, accredited by UASL
- Edge India Times Award-2020, Honor of Excellence in Teaching (5 STAR grade) by Edge India Publications.
- Edge India Times Award-2020 Honor of Excellence in Research (5 STAR grade) by Edge India Publications.
- Best poster Award in International Conference on Energy Environment & Life Science for Sustainable Future (ICEELSSF) & National Science Day Celebration, 28 Feb - 1 March, 2014 at Swami Vivekanand University, Sagar (MP), India.
- DRDO: Laboratory technology group award- 2013 for significant contribution towards “Development of safe radioprotector for human application”. Ministry of Defence, Defence Research and Development Organisation, New Delhi
- Post Doctoral Research Fellowship sponsored by FAPESP- The State of Sao Paulo Research Foundation at Center of Hematology and Hemotherapy (HEMOCENTRO), University of Campinas (UNICAMP), Campinas, Sao Paulo, Brazil. 2010-2012.
- Best Poster Award by Emerging Trends in Free Radical and Antioxidant Research: Third Meeting Of the Society for Free Radical Research -Asia (SFRR-Asia) & Sixth annual meeting of The society of Free Radical Research (SFRR) Lonavala, India, 2007.
- Qualified National Eligibility Test (NET-JRF)- 2001, UGC-CSIR, New Delhi, India
- University Top Rank Holder, 2000 in MSc. Zoology, University of Lucknow, Lucknow

Association With Professional Bodies

- **Professional Life time Membership, InSc-Institute of Scholars, an ISO certified Institute by International Accurate Certification, accredited by UASL**
- **Reviewer, InSc- International Journal of Basic & Applied Sciences**
- **Editorial Board Member, Science publishing group, American Journal of Biomedical and Life Sciences (AJBLS), New York, U.S.A.**
- **Reviewer, Current Medicinal Chemistry, Bentham Science Publishers.**
- **Reviewer, Pulsus Journals:Journal of Analytical Toxicology and Applications.**
- **Member, VDGOD Professional Association, 2021-2022.**
- **Member of Society of Leukocyte Biology (SLB), Bethesda, USA.**
- **Life Membership of Indian Science Congress Association (ISCA), Delhi.**