

#### Faculty Profile

- 1. Name : DR. MUKESH KUMAR SHARMA
- 2. Designation: Associate Professor
- 3. Department: Department of Zoology
- 4. Educational Qualification:

| Level                | Name of University/Board                |   | Title/ Remark/ Medal                    |
|----------------------|---|---|---|
| Post Doctorate (PDF) | Tokyo Institute of Technology,<br>Japan | 2007-08<br>2008-10;<br>2012-13;<br>2014 | Awarded by TSF, JSPS and<br>TBRF, Japan |
| Ph.D.                | University of Rajasthan                 |   | Awarded                                 |
| CSIR-JRF (NET)       | (NET) CSIR-UGC, New Delhi               |   | Cleared and CSIR-JRF<br>Awarded         |
| M.Sc. Zoology        | University of Rajasthan                 |   | Passed in First Division                |
| B.Sc. Biology        | University of Rajasthan                 | 1995                                    | Passed in First Division                |

#### 5. Experience: Teaching / Research

| UG 18 PG 4 Research 21 |
|------------------------|
|------------------------|

#### 6. Membership (Academic Bodies/ Research societies):

- Life member of Society for Free Radical Research, India/Asia.
- Japan Radiation Research Society, Japan
- International Association of Sensitization of Cancer Treatments, Japan
- Member of Young Radiation Biologists Association of Japan
- Life Member of Indian Society for Radiation Biology, India

#### 7. Awards Received:

| 1. | Awarded Excellent Teacher Award by Department of Higher Education,<br>Government of Rajasthan, Jaipur, 2018   |
|----|---|
| 2. | Awarded Excellent Poster Award on the basis of Reviewer Acclamation in<br>15 <sup>th</sup> International Congress of Radiation Research held at Kyoto, Japan<br>from May, 25-29, 2015 and Awarded Young Investigator Travel Award to<br>attend 15 <sup>th</sup> International Congress of Radiation Research held at Kyoto,<br>Japan from May, 25-29, 2015. |





| 3.  | Awarded International Association for Radiation Research-Young                             |
|-----|--|
|     | Scientist Travel Award to attend 14th International Congress of Radiation                  |
|     | Research, was held at Warsaw, Poland from September, 28-November 01                        |
|     | 2011.  |
| 4.  | Awarded Travel Grant from the Department of Science & Technology,                          |
|     | New Delhi to attend 14 <sup>th</sup> International Congress of Radiation Research was      |
|     | held at Warsaw, Poland.  |
| 5.  | Awarded 9th International Young Scientist award for advanced study by                      |
|     | IASCT, Japan, 2008.  |
| 6.  | Awarded EUROTOX Young Scientist Fellowship award to attend 44th                            |
|     | Congress of European Societies of Toxicology, held at Amsterdam,                           |
|     | Netherlands, from October 7-10, 2007 by European Society of Toxicology.                    |
| 7.  | Selected for Junior Investigator Award (Travel Fellowship) to attend 5 <sup>th</sup>       |
|     | International Conference on Environmental Mutagens in Human                                |
|     | <b>Populations</b> held at <b>Antalya, Turkey</b> from May 20-24, 2007.                    |
| 8.  | Awarded IUTOX Awards-CTDC fellowship by International Union of                             |
|     | Toxicology, USA to attend the EUROTOX-2006 meetings held at Cavtat,                        |
|     | Croatia from 20-24 <sup>th</sup> September, 2006.  |
| 9.  | Invited as a <b>Young Scientists delegate</b> representing India in the <b>Ist meeting</b> |
|     | of Young Radiation Scientists of Asia and also presented a poster paper in                 |
|     | Ist Asian Congress of Radiation Research held at Hiroshima, Japan from                     |
|     | November 15-17,2005  |
| 10. | Awarded Senior Research Fellowship from CSIR, New Delhi on the basis of                    |
|     | research work performance during PhD. 2002   |
| 11. | Awarded 3 <sup>rd</sup> prize in Poster paper presentation in "National Seminar on the     |
|     | Frontiers of Research and Development in Medicinal Plants" held at CIMAP-                  |
|     | CSIR, Lucknow (U.P.), INDIA from September 16-18, 2000.                                    |
|     |  |

#### 8. Academic Courses Attended:

| Course             | Place   | Sponsoring<br>Agency | Duration  |
|--------------------|---|----------------------|---|
| Orientation Course | Academic Staff<br>College, University of<br>Rajasthan, Jaipur | UGC                  | September, 27 to<br>October, 23 <sup>rd</sup> 2004. |



|   | Department of<br>Zoology, University of<br>Rajasthan, Jaipur  | UGC   | December 08-27, 2003.  |
|---|---|---|------------------------|
| Refresher   | Academic Staff<br>College, University of<br>Rajasthan, Jaipur   | UGC   | February 07-26, 2011.  |
|   | Gandhian Studies<br>Center, University of<br>Rajasthan, Jaipur  | UGC   | September 05-24, 2011. |
| Others (Workshop/<br>Summer School/<br>Camp etc.)     | UGC Sponsored Short<br>Term Course on<br>Creative Writing   | UGC   | January 05 – 10, 2015. |
|   | International School on<br>Radiation Research   | Society for<br>Radiaiton<br>Research,<br>Advanced Centre<br>for Radiation<br>Oncology, Dr.B<br>Nanavati Hospital,<br>Mumbai | September 06-20, 2020  |
| Online F.D.P<br>(Faculty<br>Development<br>Programme) | EMDI, Jaipur  | Entrepreneurship<br>& Management<br>Development<br>Institute, Jaipur,<br>India  | March 10-20, 2004.     |
|   | Online International<br>Workshop on<br>Intellectual Property<br>Rights (Equivalent to<br>FDP)   | IQAC, DDU<br>College,<br>University of<br>Delhi, New Delhi  | February 09-13, 2021   |
|   | Gyan Ganga, State<br>Level Subject Specific<br>Short Term Online<br>Training Program<br>"Initiative for<br>Teaching-Learning<br>Excellence in Zoology | Commissionerate<br>of College<br>Education, Govt.<br>of Rajasthan and<br>Govt. Dungar<br>College, Bikaner                   | January 25-31, 2021    |



#### 9. Seminar/ Conference (Important conference of last 10 Years) :

| Name of Symposium/<br>Seminar/Conference  | Internat./<br>National/<br>Regional | Organized<br>by   | Title of Paper presented   | Year |
|---|-------------------------------------|---|--|------|
| 5 <sup>th</sup> International<br>Conference on Bioenergy<br>Environment and<br>Sustainable Technologies<br>(Best 2021)<br>January 29-30 <sup>th</sup> , 2021                      | International                       | Arunai<br>Engineering<br>College,<br>Tiruvanamalai,<br>Tamilnadu        | Phytochemical and<br>antimicrobial activity<br>analysis of ethanolic extract<br>of Guggul ( <i>Commiphora</i><br><i>wightii</i> ) gum            | 2021 |
| National Conference on<br>Climate change: The<br>Impact on Biodiversity and<br>Global Health Security<br>December 20-22, 2019   | National                            | Department of<br>Botany,<br>University of<br>Rajasthan,<br>Jaipur       | Heavy metal induced<br>oxidative<br>stressherbal<br>extract  | 2019 |
| National Conference on<br>Nanomaterials in Biology<br>(NCNB 2019) held at<br>Department of Zoology,<br>University of Rajasthan,<br>Jaipur   | National                            | Department<br>of Zoology,<br>University of<br>Rajasthan,<br>Jaipur      | Future prospects of metal<br>nanoparticles (NPs) as an<br>efficient carrier of plant<br>based drugs to cure<br>cancer given contributed<br>talk. | 2019 |
| 16 <sup>th</sup> International<br>Congress of Radiation<br>Research held at<br>Menchester, UK from<br>August, 25 to August<br>29 <sup>th</sup> , 2019.                            | International                       | International<br>Association<br>for Radiation<br>Research               | Phosphorylation of<br>XRCC4 by DNA-<br>dependent protein kinase<br>in DNA double-strand<br>break repair through non-<br>homologous end joining   | 2019 |
| International Conference<br>on Recent Trends in<br>Environment & Natural<br>Sciences, held at<br>Government Science<br>College, Sikar from 12-<br>13 <sup>th</sup> February, 2019 | International                       | Government<br>Science<br>College,<br>Sikar                              | Molecular mechanism of<br>DNA double strand break<br>repair and its application<br>in cancer radiotherapy;<br>Invited talk                       | 2019 |
| International Conference<br>on Frontiers at the<br>Chemistry-Allied<br>Sciences Interface held at<br>Department of<br>Chemistry, University of                                    | International                       | Department<br>of<br>Chemistry,<br>University of<br>Rajasthan,<br>Jaipur | Role of various<br>phytoextracts in modifying<br>arsenic induced toxicity  | 2018 |



| Rajasthan, Jaipur from 21-22 <sup>nd</sup> December, 2018   |               |  |   |      |
|---|---------------|--|---|------|
| International Conference<br>on Environmental<br>Awareness Protection &<br>New Challenges held at<br>St. Wilfred's PG College,<br>Jaipur from 03-04 <sup>th</sup><br>February, 2017. | International | St. Wilfred's<br>PG College,<br>Jaipur under<br>the auspices<br>of<br>International<br>Society for<br>Life Sciences<br>and The<br>Indian<br>Science<br>Congress<br>Association,<br>Jaipur<br>Chapter | Herbal drugs: Possible<br>modifier against metal<br>toxicity<br>(Invited Talk)  | 2017 |
| International conference<br>on Fight Against Cancer<br>(FAC Con-2017), CSJM<br>University, Kanpur from<br>05- 07 <sup>th</sup> October, 2017  | International | CSJM<br>University,<br>Kanpur (UP)   | Non-homologous end-<br>joining repair pathway of<br>DNA double-strand<br>breaks and its application<br>in cancer radiotherapy<br>(Invited Talk) | 2017 |
| National Seminar on<br>Cancer Prevention and<br>Treatment Strategies,<br>from December, 22-23,<br>2017  | National      | Department<br>of Zoology,<br>University of<br>Rajasthan,<br>Jaipur   | Molecular mechanism of<br>non-homologous end-<br>joining (NHEJ) repair<br>pathway: A novel<br>approach for cancer<br>treatments (Invited Talk)  | 2017 |
| International Conference<br>on Environmental<br>Changes and Their<br>impact on Plants and<br>Human Health from<br>January 15-17, 2018   | International | St. Wilfred's<br>PG College,<br>Jaipur   | Elucidation of<br>in Cancer<br>Radiotherapy (Invited<br>Talk)   | 2018 |
| International Conference<br>on Structure and<br>Dynamics of<br>Biomolecules held at<br>DDU Gorakhpur<br>University, Gorakhpur   | International | DDU<br>Gorakhpur,<br>Gorakhpur<br>(UP)   | XRCC4: A key player in<br>NHEJ repair pathway of<br>DNA double strand<br>breaks<br>(Invited Talk)   | 2017 |



| (UP) from January, 27-<br>28 <sup>th</sup> , 2017.   |               |   |   |      |
|--|---------------|---|---|------|
| 10 <sup>th</sup> International 3R<br>Symposium held at Hotel<br>Ichibata, Matsue City,<br>Shimane Japan from<br>November, 13-17, 2016.   | International | Tokyo<br>Metropolitan<br>Institute of<br>Medical<br>Science,<br>Tokyo, Japan  | XRCC4: phosphorylation<br>target of DNA-PK in<br>DNA double-strand<br>break repair  | 2016 |
| National Conference on<br>Environmental<br>challenges human Health<br>and Society held at<br>University of Rajasthan,<br>Jaipur from September<br>08-10, 2016                  | National      | University<br>Maharaja<br>College,<br>Jaipur and<br>International<br>Society for<br>Life Sciences                           | <i>In vitro</i> conservation and<br>evaluation of biological<br>activity of some<br>endangered<br>ethnomedicinally<br>important plants of Jaipur<br>District, Rajasthan | 2016 |
| International Conference<br>on Biotechnology and<br>Nanotechnology, held at<br>IIS University, Jaipur<br>from January 30-<br>February 01, 2016                                 | International | IIS<br>University,<br>Jaipur under<br>the auspices<br>of Indian<br>Science<br>Congress<br>Association,<br>Jaipur<br>Chapter | Targeting non-<br>homologous<br>end joining repair<br>pathway of DNA double<br>strand breaks: A novel<br>approach to improve<br>Cancer Radiotherapy<br>(Invited Talk)   | 2016 |
| <b>15<sup>th</sup> International</b><br><b>Congress of Radiation</b><br><b>Research held at Kyoto,</b><br><b>Japan</b> from May, 25-29,<br>2015.                               | International | IARR, USA<br>and Japan<br>Radiation<br>Research<br>Society,<br>Japan  | XRCC4 phosphorylation<br>by DNA–PK essential for<br>DNA double–strand<br>break repair.  | 2015 |
| International Conference<br>on Medical Physics,<br>Radiation Protection and<br>Radiobiology, held at<br>SMS Medical College &<br>Hospital Jaipur from 20-<br>22 February, 2015 | International | Department<br>of<br>Radiobiologi<br>cal Physics,<br>SMS Medical<br>College &<br>Hospital,<br>Jaipur.                        | <i>In Cellulo</i><br>phosphorylation of<br>XRCC4 protein: A<br>predictive marker of<br>DNA-PK activity.   | 2015 |



| 20 <sup>th</sup> Annual Meeting on<br>the Sensitization of<br>Cancer Treatments held<br>at Kochi, Japan on 07 <sup>th</sup><br>June, 2014.                             | International | International<br>Association<br>for<br>Sensitization<br>of Cancer<br>Treatments,<br>Japan                                      | Involvement of DNA-PK<br>phosphorylation sites in<br>XRCC4 in the functional<br>regulation of<br>nonhomologous end-<br>joining repair pathway. | 2014 |
|--|---------------|--|--|------|
| 3 <sup>rd</sup> Asian Congress of<br>Radiation Research,<br><b>Beijing, China</b> May, 10-<br>13 2013.   | International | Asian<br>Association<br>for Radiation<br>Research and<br>National<br>Institute for<br>Radiological<br>Protection,<br>China CDC | XRCC4: The Genuine<br>Target of DNA-PK in<br>Non Homologous End<br>Joining<br>(Invited Talk)   | 2013 |
| 3 <sup>rd</sup> Asian Congress of<br>Radiation Research,<br><b>Beijing, China</b> May, 10-<br>13 2013.   | International | Asian<br>Association<br>for Radiation<br>Research and<br>National<br>Institute for<br>Radiological<br>Protection,<br>China CDC | Identification of<br>phosphorylation sites in<br>XRCC4 mediating its<br>functional regulation by<br>DNA-PK                                     | 2013 |
| 28th RBC-NIRS<br>International Symposium<br>on "Radiation-associated<br>Repair Proteins and<br>DNA Repair Network"<br><b>Kyoto, Japan</b> from<br>November 29-30, 2012 | International | Radiation<br>Biology<br>Center,<br>Kyoto<br>University<br>Kyoto, Japan   | Regulation of non-<br>homologous end-joining<br>repair mechanism of<br>DNA double strand break<br>by kinase activity of<br>DNA-PK              | 2012 |
| 55 <sup>th</sup> Annual Meeting of<br>Japan Radiation Research<br>Society, held at <b>Sendai</b> ,<br><b>Japan</b> from September<br>06-08 <sup>th</sup> 2012          | International | Japan<br>Radiation<br>Research<br>Society and<br>Tohoku<br>University,<br>Sendai,<br>Japan                                     | Analysis of XRCC4<br>phosphorylation <i>in vitro</i><br>and <i>in cellulo</i> by DNA-PK  | 2012 |
| International Conference<br>on Cancer Prevention,  | International | Centre for<br>Advanced   | Role of DNA-PK phosphorylation in non-   | 2012 |





| Diagnosis and Treatment<br>held at Jaipur (INDIA)<br>from<br>January 21-22, 2012.  |               | Studies,<br>Department<br>of Zoology,<br>University of<br>Rajasthan,<br>Jaipur and<br>Indian<br>Society for<br>Radiation<br>Biology,<br>India | homologous end joining<br>repair pathway of DNA-<br>double strand break.   |      |
|--|---------------|---|--|------|
| 14 <sup>th</sup> International<br>congress of Radiation<br>Research, held at<br><b>Warsaw, POLAND,</b><br>From August, 27-<br>September 01 <sup>st</sup> 2011  | International | International<br>Association<br>for Radiation<br>Research and<br>Polish<br>Radiation<br>research<br>Society,<br>Poland                        | "DNA-PK<br>phosphorylation in<br>XRCC4 and XLF and its<br>role in DNA double-<br>strand break repair<br>through nonhomologous<br>end joining. (Also<br>awarded IARR-Young<br>Scientist Travel Award) | 2011 |
| 56 <sup>th</sup> Annual meeting of<br>Radiation Research<br>Society, USA held at<br><b>Maui, Hawaii, USA</b><br>from September 25-29 <sup>th</sup><br>2010.  | International | Radiation<br>Research<br>Society, USA   | Identification of DNA-PK<br>phosphorylation targets<br>in XRCC4 & XLF proteins<br>and their physiological<br>significance in the process<br>of DNA double strand<br>break repair                     | 2010 |
| International Ataxia-<br>Telangiectasia Workshop<br>ATW 2010 held at<br><b>Redondo Beach, CA,</b><br><b>USA</b> from April 11-14,<br>2010  | International | University of<br>California<br>Los angeles,<br>USA  | DNA-PK<br>phosphorylation targets<br>in XRCC4 and XLF<br>proteins in DNA double-<br>strand break repair  | 2010 |
| 53 <sup>rd</sup> Annual Meeting of<br>Japan Radiation Research<br>Society and NIRS<br>International Symposium<br>on "Centrosome in DNA<br>damage response and<br>diseases" was held at<br><b>Kyoto, Japan</b> from<br>October 20-22, 2010. | International | Japan<br>Radiation<br>Research<br>Society,<br>Japan   | DNA-PK<br>phosphorylation<br>mediated regulation of<br>NHEJ repair process of<br>DNA double strand break   | 2010 |
| Annual Meeting of<br>International Association   | International | International<br>Association  | DNA-PK<br>phosphorylation sites  | 2010 |



| for Sensitization of<br>Cancer Treatments held<br>at <b>Gifu, Japan</b> on June<br>19 <sup>th</sup> , 2010.   |               | for<br>Sensitization<br>of Cancer<br>Treatments,<br>Japan                                 | essential for DNA<br>Double-Strand Break<br>Repair and its possible<br>application in Cancer<br>Therapy.        |      |
|---|---------------|---|---|------|
| <b>International Young</b><br><b>Scientist Award Lecture</b><br>in the 12 <sup>th</sup> Symposium on<br>Sensitization of Cancer<br>Treatment, held at <b>Nara</b> ,<br><b>JAPAN</b> from February,<br>13-14 2010. | International | International<br>Association<br>for<br>Sensitization<br>of Cancer<br>Treatments,<br>Japan | The true substrate of<br>DNA-dependent protein<br>kinase (DNA-PK) and the<br>significance of<br>phosphorylation | 2010 |

#### 10. Organizing Sec./Convener of conference/seminar/webinar :

| Year |
|------|
| 2015 |
|      |
|      |
|      |
|      |
| 2018 |
|      |

#### **11. Resource Person:**

| In training Programme       | Gyan Ganga, State Level Subject Specific Short Term |  |  |  |  |
|-----------------------------|---|--|--|--|--|
|                             | Online Training Program "Initiative for Teaching-   |  |  |  |  |
|                             | Learning Excellence in Zoology" jointly organized   |  |  |  |  |
|                             | by SPC Government College, Ajmer and                |  |  |  |  |
|                             | Commissionerate College Education Rajasthan,        |  |  |  |  |
|                             | Jaipur from February 15-20th, 2021                  |  |  |  |  |
|                             |   |  |  |  |  |
| In conferences/Seminars     | 1. National Conference on Nanomaterials in          |  |  |  |  |
| (Chair/Co-Chair/of Session) | Biology (NCNB 2019) held at Department of           |  |  |  |  |
|                             | Zoology, University of Rajasthan, Jaipur            |  |  |  |  |



from 09th to 12th October, 2019 (contributed talk)

- National Conference on Environment: Issues, Challenges and Strategies organized by SPC Government College, Ajmer from October 1-2<sup>nd,</sup> 2018 (Co-chair)
- 3. International Conference on Recent Trends in Environment & Natural Sciences – ICRTENS – 2019 organized by Government Science College, Sikar, Rajasthan, India from February 12-13, 2019 (Invited Talk and Chaired a session)
- International conference on Fight Against Cancer (FAC Con-2017), CSJM University, Kanpur from 05- 07<sup>th</sup> October, 2017 (Invited Talk)
- International Conference on Environmental Awareness Protection & New Challenges held at St. Wilfred's PG College, Jaipur from 03-04th February, 2017. (Invited Talk)
- 6. National Seminar on Cancer Prevention and Treatment Strategies, organized by Department of Zoology, University of Rajasthan, Jaipur from December, 22-23, 2017 (Invited Talk)
- 7. International Conference on Environmental Changes and Their impact on Plants and Human Health from January 15-17, 2018 (Invited Talk)
- 8. International Conference on Structure and Dynamics of Biomolecules held at DDU Gorakhpur University, Gorakhpur (UP) from January, 27-28<sup>th</sup>, 2017. (Invited Talk)
- 9. International Conference on Biotechnology and Nanotechnology, held at IIS University, Jaipur from January 30-February 01, 2016 (Invited Talk)
- 3<sup>rd</sup> Asian Congress of Radiation Research, Beijing, China May, 10-13 2013 (Invited Talk)



#### **12.** Research Publications (Important Selected Research Papers)

| Title of Paper  | Name of Journal<br>with Impact factor &<br>ISSN No.   | Volume and  | ,  | Impact<br>Factor | Google<br>Index |
|---|---|---|----|------------------|-----------------|
| DNA-Dependent Protein<br>Kinase in DNA Damage<br>Response: Three Decades<br>and Beyond                                  | Journal of Radiation<br>and Cancer Research;<br>ISSN - Print: 2588-<br>9273,<br>Online: 2468-9203 | Volume 11<br>Issue 4<br>October-<br>December<br>2020                | -  |                  | Yes             |
| Metal nanoparticles and<br>medicinal plants: Present<br>status and future prospects<br>in cancer therapy,               | Materials Today:<br>Proceedings;<br>ISSN: 2214-7853<br>(Published by Elsevier,<br>Amsterdam)      | 31 (2020)<br>662–673  | -  |                  | Yes             |
| <i>In cellulo</i> phosphorylation of<br>DNA double-strand break<br>repair protein XRCC4 on<br>Ser260 by DNA-PK.         | Research,   | 700–708;  | 3  | 1.950            | Yes             |
| complementing group 4<br>promotes apoptosis by  | Research<br>(Published by<br><i>Elsevier, Amsterdam</i> );  | Volume 362<br>450–460; 2018   | 3  | 3.383            | Yes             |
| In cellulo phosphorylation of<br>XRCC4 Ser320 by DNA-PK<br>induced by DNA damage.                                       | Journal of Radiation<br>Research ( <i>Published by</i><br><i>Oxford Press;)</i><br>ISSN 0449-3060 | Volume<br>57(2): Pages<br>115-20, 2016                              | 12 | 1.950            | Yes             |
| Lysine 271 but not lysine<br>210 of XRCC4 is required<br>for the nuclear localization<br>of XRCC4 and DNA ligase<br>IV, | Biochemical and<br>Biophysical Research<br>Communications   | Volume 461,<br>Issue 4, 12<br>June 2015,<br>Pages 687–<br>694; 2015 | 15 | 2.985            | Yes             |



| Asparagine 326 in the<br>extremely C-terminal region<br>of XRCC4 is essential for the<br>cell survival after irradiation, | Biophysical Research   | Volume<br>457(4);<br>Pages 526-31.<br><b>2015</b>           | 5   | 2.985 | Yes |
|---|--|---|-----|-------|-----|
| Ionizing radiation-induced<br>XRCC4 phosphorylation is<br>mediated through ATM in<br>addition to DNA-PK,                  | Japan Academy,   | Volume 90:<br>365-372.<br>Pages 365-<br>372; 2014           | 7   | 2.77  | Yes |
| C-terminal region of DNA<br>ligase IV drives<br>XRCC4/DNA ligase IV<br>complex to chromatin,                              | Biochemical and<br>Biophysical Research<br>Communications<br>(Published by<br><i>Elsevier, Amsterdam;</i><br>ISSN: 0006-291X | Volume 439:<br>Issue 2,<br>Pages 173–<br>178<br><b>2013</b> | 19  | 2.985 | Yes |
| Panax ginseng on the  | Biological and<br>Pharmaceutical<br>Bulletin<br>(Published by<br>Pharmaceutical Society<br>of Japan)<br>ISSN: 0918-6158      | Volume 26<br>(3), page no.<br>308-312; 2003                 | 118 | 1.828 | Yes |



| <i>Emblica officinalis</i> fruit extract<br>against arsenic induced<br>oxidative stress in Swiss<br>albino mice.                  | Interact. ISSN: 0009-                        | Volume<br>180(1): Page<br>20-30,    | 103 | . 3.723 | Yes |
|---|--|-------------------------------------|-----|---------|-----|
| Protective Effect of Mentha<br>piperita against Arsenic-<br>Induced Toxicity in Liver of<br>Swiss Albino Mice                     | Pharmacology &                               | Volume 100<br>(4): 249-257;<br>2007 | 100 | 2.651   | Yes |
| <i>Spirulina fusiformis</i> provides<br>protection against mercuric<br>chloride induced oxidative<br>stress in Swiss albino mice. | ISSN: 0278-6915.<br>(Published by:-Elsevier, | Volume<br>45(12): Page<br>2412-9,   | 85  | 4.679   | Yes |

#### **13. Research Projects:**

| Title of the Project  | Year    | Name of funding  | Fund available/  |
|---|---------|--|--|
|   |         | agency   | utilized   |
| Biotechnological approaches for<br>Conservation of Endangered<br>Ethnomedicinal Plants and evaluation of<br>their possible therapeutic applications:<br>Promotion of Indigenous Knowledge<br>through Local health traditions among<br>rural tribes of Rajasthan | 2018-20 | Awarded Major<br>Research Project from<br>Department of<br>Science and<br>Technology,<br>Government of<br>Rajasthan by letter<br>no. F.7(3) DST/BTR<br>& D/EAC/2018/3157<br>(2018-2020) as a Co-<br>Investigator | University of<br>Rajasthan, Jaipur   |
| Arsenic induced toxicity DMSA<br>(A chelating agent) and <i>Mentha piperita</i> (A<br>herbal extract).  | 2014-16 | UGC-CRO, Bhopal  | 1.90   |
| Elucidation of DNA damage<br>recognition/repair mechanism and its<br>application to cancer therapy  | 2012-14 | Tokyo Biochemical<br>Research Foundation,<br>Japan   | Post-Doctoral<br>Research<br>Fellowship and<br>Research Grant of<br>about 1.5 Million<br>Yen |



| Mechanism of Recognition/Repair of DNA<br>Double-Strand Breaks and Its Application<br>to Cancer Therapy |         | Promotion of Science,<br>Japan | Post-Doctoral<br>Research<br>Fellowship and<br>Research Grant of<br>about 2.0 Million<br>Yen |
|---|---------|--------------------------------|--|
| Modulatory influence ofin Swiss albino mice.  | 2004-06 | UGC-CRO, Bhopal                | 1.00   |

#### **14.** Research Supervision:

#### • Basic Field of specialization:

Ph.D.

| Name of Student | Title of thesis | Present status | Date and Year of<br>Award, if so |
|-----------------|-----------------|----------------|----------------------------------|
| -               | -               | -              | -                                |

#### ✤ M. Phil.

| Name of Student | Title of Dissertation | Present status | Date and Year of<br>Award, if so |
|-----------------|-----------------------|----------------|----------------------------------|
| -               | -                     | -              | -                                |

### 15. Monograph/ Book / Chapter (in Edited Book)/Chapters in study material of Open universities

#### • Book (Single Author)

| Title of Book | ISBN/ ISSN<br>No. | Publisher with Place | Year of<br>Publication |
|---------------|-------------------|----------------------|------------------------|
|               |                   |                      |                        |
|               |                   |                      |                        |

#### Chapter(s) in Book (Edited / multi-author)

| Title of Chapter/Book                          | Authors /<br>Editors                   | Name of the<br>Book with<br>ISBN/ ISSN No. | Publisher with<br>Place | Year of<br>Publication |
|--|--|--|-------------------------|------------------------|
| Applied Zoology, Ethology<br>and Biostatistics | A.Sharma, P.<br>Sankhla,<br>M.K.Sharma | Applied<br>Zoology,                        | College Book<br>House   | 2020                   |



|  |   | Ethology and<br>Biostatistics   |  |      |
|--|---|---|--|------|
| Role of Brassica compestris<br>(Var Sarson) in modifying<br>arsenic induced toxicity   | P.D.Meena<br>and<br>J.K.Chawla                        | Biodiversity,<br>Environmental<br>Challenges<br>and Wildlife<br>Conservations<br>ISBN- 81-8952<br>-00-2 | Banyan<br>Publication                                | 2018 |
| A Bird Eye View on<br>Medicinal Plants used for<br>curing diabetes in traditional<br>herbal medicine around rural<br>areas of Jaipur district,<br>Rajasthan    | P.D.Meena<br>and<br>J.K.Chawla                        | Biodiversity,<br>Environmental<br>Challenges<br>and Wildlife<br>Conservations<br>ISBN- 81-8952<br>-00-2 | Banyan<br>Publication                                | 2018 |
| Studies on ecology and<br>ethnomedicine: Exploring<br>links between current<br>environmental crisis and<br>indigenous medical practices<br>in present scenario | P.D.Meena<br>and<br>J.K.Chawla                        | Biodiversity,<br>Environmental<br>Challenges<br>and Wildlife<br>Conservations<br>ISBN- 81-8952<br>-00-2 | Banyan<br>Publication                                | 2018 |
| Environmental Challenges<br>and Sustainable<br>Development   | H.Pareek,<br>M.K.Sharma<br>and S.Sharma               | ISBN:- 978-81-<br>89527-04-4  | ISLS, Jaipur and<br>Banyan<br>Publication,<br>Jaipur | 2017 |
| An Overview on arsenic<br>induced toxicity and human<br>health   | S.K.Sharma,<br>M.K.Sharma,<br>H.Pareek and<br>M.Kumar | Environmental<br>Challenges<br>and<br>Sustainable<br>Development,<br>ISBN:- 978-81-<br>89527-04-4       | ISLS, Jaipur and<br>Banyan<br>Publication,<br>Jaipur | 2017 |
| Evaluation of phytochemical,<br>nutritional and therapeutic<br>values of <i>Moringa olifera</i>  | R.Pareek,<br>S.Sharma,<br>M.K.Sharma<br>and H.Pareek  | Environmental<br>Challenges<br>and<br>Sustainable<br>Development,                                       | ISLS, Jaipur and<br>Banyan<br>Publication,<br>Jaipur | 2017 |



| Radiosensitzation Strategies<br>through Modification of<br>DNA Double-Strand Break<br>Repair.  | In "DNA<br>Repair - New<br>Research<br>Directions",<br>InTech Europe<br>University<br>Campus STeP<br>Ri, Slavka<br>Krautzeka<br>83/A, 51000<br>Rijeka,<br>Croatia, | ISBN:- 978-81-<br>89527-04-4<br>In "DNA<br>Repair - New<br>Research<br>Directions"<br>ISBN 980-953-<br>307-746-3. | Intech Europe   | 2012   |
|--|--|---|---|--|
| Phytodrugs: Possible<br>ameliorators of arsenic<br>toxicity, Pages 363-365   | Edited by Jiin-<br>Shuh Jean,<br>Jochen<br>Bundschuh<br>and Prosun<br>Bhattacharaya.   | 'Arsenic in<br>Geosphere<br>and Human<br>Diseases';<br>ISBN- 978-0-<br>415-57898-1                                | CRC Press,<br>Taylor and<br>Franscis Group,<br>Boca Raton,<br>London; | Published-<br>26 <sup>th</sup> April,<br>2010. |
| Role of arsenic-induced<br>oxidative stress: Efficacy of<br>combined combined<br>administration of meso 2,3<br>dimercaptosuccinic acid<br>(DMSA) and Ellagic acid in<br>liver of Swiss albino mice,<br>361-162 | Edited by Jiin-<br>Shuh Jean,<br>Jochen<br>Bundschuh<br>and Prosun<br>Bhattacharaya.   | 'Arsenic in<br>Geosphere<br>and Human<br>Diseases';<br>ISBN- 978-0-<br>415-57898-1                                | CRC Press,<br>Taylor and<br>Franscis Group,<br>Boca Raton,<br>London; | Published-<br>26 <sup>th</sup> April,<br>2010. |

#### 16. Sports Activities:- NA

**17. Extra Curricular Activities:** NA

#### 18. Any Other Relevant Information/Contributions

#### **Total citations of Research Papers - 780**

#### H-Index-12

#### **INTERNATIONAL PATENT:-**

Patent application no. J90187A1 entitled **"A method for measuring an activity of a DNAdependent protein kinase, a method for determining a radiosensitivity of a test cell, a method for determining a cancer morbidity of a test cell, a screening method for inhibitor or activator of DNA-dependent protein kinase and a kit therefore**" files at Japan Patent Office, Japan, 2014 and published in 2016.