

Dr. DEV DUTT PATEL

Ph.D

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QUALIFICATION

- 2001-04 B.Sc. (Biotechnology, Chemistry & Zoology) from University Maharaja College, Jaipur.
- 2004-06 M.Sc. (Zoology) from Department of Zoology, University of Rajasthan, Jaipur 2004-06.
- 2006 Certificate course in **German language** from University of Rajasthan, Jaipur
- 2013 **Ph.D. in Biotechnology** from INMAS (DRDO) & Jamia Hamdatd, New Delhi in 2013 on title "*Evaluation of γ -radiation induced molecular changes of gastrointestinal and reproductive systems and their modulation by radioprotective bacterial fraction in murine model*".

SPECIALIZATION/AREA OF RESEARCH INTEREST

- Cell and Molecular Biology
- Radiation Biology
- Microbial Metabolomics
- Cognitive Neurosciences

STUDENT SUPERVISED

- Ph.D. Students Nil
- M.Phil Nil
- Post graduate Nil

- Undergraduate **19**

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

- 2007- present Life member, Association of Microbiologists of India (AMI)
- 2009-2011 Student membership, The Society for Free Radical Research- India
- 2010-present Life member , Indian Society for Radiation Biology
- 2012-2013 Annual Member American Society of Microbiology

RESEARCH PROJECT ONGOING (01)

UGC-START-UP GRANT (30 March 2015-CONT.)

- Ongoing project **No. F.30-91/2015 (BSR)** entitle “Search for novel metabolites from extremophile of mine stones of Marwar region, Rajasthan.

RESEARCH PROJECT COMPLETED (03)

DBT-STAR COLLEGE PROJECT (2011-2012)

- Completed DBT-STAR College Project No. **BT/HRD/11/07/2011** entitle “Comparative study of the diversity of extremophile in different region of India”.

DELHI UNIVERSITY INNOVATION PROJECT (15 May 2012-15 July 2013)

- Completed Innovative Project No. **SVC-107** entitle “An easy identification of few pathogenic gamma/epsilon proteobacteria by exploring the internal features of their 16S r RNA”.

DELHI UNIVERSITY INNOVATION PROJECT (15 Nov 2013-16 Dec. 2013)

- Conducted Innovative Project No. **SVC-206** entitle “Immunohistochemical evaluation of candidate makers for sebaceous differentiation and their association with aggressive eyelid sebaceous gland carcinoma”.

TEACHING EXPERIENCE

- Currently teaching as Assistant Professor in the Department of Zoology, University of Rajasthan since 17 December 2013 to Cont.
- Teaching as Assistant Professor on Ad-hoc basis in the Department of Zoology, Sri Venkateswara College, University of Delhi since January 2011 to 16 Dec. 2013.
- Teaching subjects of B.Sc. Biological Science, B.Sc. Life Science, B.Sc. Zoology (Pass and Honors courses) and B. Tech/M.Tech Cognitive Neuroscience.

ADMINISTRATIVE RESPONSIBILITIES

- Associate NCC Officer (ANO), 7 RAJ (I) COY NCC, Jaipur.
- Assistant Warden, Gokhale Hostel, Jaipur
- Member, Central Instrumentation Facility committee, Department of Zoology, Jaipur
- Member, M.Sc. (Final) Lab Maintenance committee, Department of Zoology, Jaipur
- Member of Faculty profile committee Department of Zoology, Jaipur for session 2014-15.
- Member of revision of curriculum M.Sc. special Paper CMB committee for session 2014-15.
- Member of NCC 'B' Certificate examination for session 2014-15
- Member, Setting a Modern Centralized Laboratory for Biomedical & Molecular Diagnostics committee, Department of Zoology, Jaipur
- Member, Timetable Committee of Cognitive Neuroscience, Centre for Converging Technologies, University of Rajasthan, Jaipur
- Manager, University Maharaja College, Jaipur, Inter College Chess tournament-2014-15.
- Member of Examination committee at University Maharaja College for session 2014-15.
- Guest lecturer in SATCOM for PMT Classes for session 2014-15.
- Member, Admission Committee for session 2014-15; 2015-2016 University Maharaja College, Jaipur
- Member, Anti-ragging Committee for session 2014-15;2015-2016 University Maharaja College, Jaipur
- Member of Sports Purchase Committee of University Maharaja College for session 2014-15.
- Member, MCJSU Election Management Committee for session 2014-15; 2015-2016 University Maharaja College, Jaipur
- Member, MCJSU Election Monitoring to Code of Conduct Committee for session 2014-15; 2015-2016 University Maharaja College, Jaipur
- Member, Sub-committee for Monitoring the distribution of Degrees on Convocation Day, 7th July, 2015
- Member, Committee for Printing process of Degrees (1990-2014) of University of Rajasthan, Jaipur

SCHOLARSHIP/FELLOWSHIP/AWARDS

- National Cadet Corps Cadet Welfare Society sponsored scholarship for undergraduate students in 2004

- Awarded Indian Council of Medical Research's Junior Research Fellowship (**ICMR-JRF**) in 2006.
- Graduate Aptitude Test for Engineering (**GATE**) in 2007. **All India Rank 90 with percentile 99.13.**
- Awarded University Grant Commission–National Eligibility Test (**UGC-NET-JRF**) in December 2006.
- Best Poster award in 48th Annual Conference of Association of Microbiologists of India (AMI) held at Indian Institute of Technology Madras, Chennai, from December 18-21, 2007.
- Best poster award in International Conference on Radiation Biology, Nanotechnology, Imaging and stem cell research in radiation oncology 10th Biennial Meeting of Indian Society of Radiation Biology (ISRB) held at Sri Ramachandra University, Chennai from November 15-17, 2010.
- Certificate of Appreciation on 56th Foundation Day of Department of Zoology for invited talk in National Workshop on Biomedical Instruments and Technology (NWBIT-2015) held at Department of Zoology, University of Rajasthan from March 13-14, 2015.
- Certificate of Appreciation for well managed March Past/Parade on occasion of 69th Independence Day celebration held at University sports complex, University of Rajasthan, Jaipur.

PATENT (Published -01)

- Kumar, R., Bansal, D.D., **Dev D. Patel**, Mishra, S., Sharma, A., Arora, R., Tripathi, R.P. "A Process of artificial induction, extraction and purification of radioprotective molecules from bacteria" has patented through Indian Patent Office, Delhi (India) **Patent No. 519/DEL/2010; Publication date 16/09/2011.**

PATENT (Filed-01)

- Kumar, R., Mishra, S., Malhotra, P., Bansal, D.D., **Dev D. Patel**, Gupta, A.K., Singh, P.K., Tripathi, R.P. "A novel method to screen out synthetic and natural agents protecting DNA repair enzymes (i.e. DNA ligase) against radiation induced functional impairment" has applied for patent through Indian Patent Office, Delhi (India) **Patent No. 3800/DEL/2012.**

BOOK CHAPTER PUBLISHED (International -01)

2010

- Raj Kumar, **Dev D. Patel**, Deen Dayal Bansal, Saurabh Mishra, Anis Mohammed, Rajesh Arora, Ashok Sharma, R.K. Sharma and Rajendra Prasad Tripathi. Extremophiles: Sustainable resource of natural compounds-Extremolytes. Sustainable Biotechnology: sources of renewable energy. Singh, Om V.; Harvey, Steven P. (Eds.) Springer ISBN: 978-90-481-3295-2.

RESEARCH PAPER PUBLISHED (International -06)

2011

- Raj kumar, Deen D. Bansal, **Dev D. Patel**, Saurabh Mishra, Yana Karanalakova, Zheleva A, Veselina Gadjeva and Rakesh Kumar Sharma. (2011) Antioxidative and radioprotective activities of semiquinone glucopyrranone derivative (SQGD) isolated from *Bacillus* sp. INM-1. **Molecular and Cellular Biochemistry**, 349: 57-67 (IF-2.057) ISSN: 0300-8177 (print version) ISSN: 1573-4919 (electronic version)
- Raj Kumar, Rakesh K Sharma, Deen D Bansal, **Dev D. Patel**, Saurabh Mishra, Lyuba Miteva, Zlatka Dobрева, Veselina Gadjeva and Spaska Stanilova. (2011) Induction of immunomodulatory cytokine genes expression in human PBMCs by a novel Semiquinone glucoside derivative (SQGD) isolated from a *Bacillus* sp. INM-1. **Cellular Immunology**, 267: 65-75 (IF-1.974) ISSN: 0008-8749.

2012

- **Dev D. Patel**, Deen D. Bansal, Saurabh Mishra, Rajesh Arora, Swatantra K. Jain, Salim Javed, Raj Kumar. (2012) A semiquinone glucoside derivative (SQGD) provides protection to male reproductive system of the mice against ionizing radiation induced toxicity. **Environmental Toxicology**, DOI 10.1002/tox.21781 (IF-2.708) Online ISSN: 1522-7278.
- **Dev D. Patel**, Deen D Bansal, Saurabh Mishra, Rajesh Arora, Ashok Sharma, Swatantra K Jain, Raj Kumar. (2012) Radioprotection to small intestine of the mice against ionizing radiation by Semiquinone Glucoside Derivative (SQGD) isolated from a novel radioresistant bacterium *Bacillus* sp. INM-1. **Molecular and Cellular**

Biochemistry, 70: 115-125 (IF-2.057) ISSN: 0300-8177 (print version) ISSN: 1573-4919 (electronic version).

2013

- Mishra, S., Reddy, D.S.K., Jamwal, V.S., Bansal, D.D., **Dev D. Patel**, Malhotra, P., Gupta, A.K., Singh, P.K., Jawed, S., Raj Kumar. (2013) Semiquinone derivative isolated from *Bacillus* sp. INM-1 protects cellular antioxidants enzymes from γ -radiation induced renal toxicity. **Molecular and Cellular Biochemistry**, DOI: 10.1007/s11010-013-1622-x (IF-2.057) ISSN: 0300-8177 (print version) ISSN: 1573-4919 (electronic version).
- Mishra, S., Bansal, D.D., Malhotra, P., K. Reddy, D.S., Jamwal, V.S., **Dev D. Patel**, Gupta, A.K., Singh, P.K., Jawed, S., Raj Kumar. (2013) Semiquinone fraction isolated from *Bacillus* sp. INM-1 protects hepatic tissues against γ -radiation induced toxicity. **Environmental Toxicology**, DOI: 10.1002/tox.21877. (IF-2.708) Online ISSN: 1522-7278.

2014

- Mishra S., **Dev D. Patel**, Bansal, D.D., Kumar, R (2014) Semiquinone glucoside derivative (SQGD) provides protection against γ -radiation by modulation of immune response in murine model. **Environmental Toxicology**, Accepted TOX-14-023.R1 (IF-2.708) Online ISSN: 1522-7278.

2015

- Ghosh,A., Sri Murlidharan, M., Singhvi, N., Kaicker, A., **Dev D. Patel**, Dhanaraj, P.S., Lal, R., Verma, M. (2015) Identification of genus *Campylobacter* up to species level using internal features of 16S rRNA gene sequences. **Russian Journal of Genetics**, Accepted (IF-0.446) Online ISSN 1608-3369.

ABSTRACT PUBLISHED (National-04)

2013

- Ghosh,A., Sri Murlidharan, M., Singhvi, N., Kaicker, A., **Patel, D.D.**, Dhanaraj, P.S., Lal, R., Verma, M. (2013) An approach to classify uncharacterized species of *Campylobacter* by exploring the internal features of housekeeping genes. National Symposium on Recent Trends in Innovative Research at Undergraduation: Science and Society. Pp 65.

- Rai, A., Puri, A., **Patel, D.D.**, and Verma, M., (2013) An approach to characterize the species of genus *Helicobacter* by analysing their 16s rRNA gene. National Symposium on Recent Trends in Innovative Research at Undergraduation: Science and Society. Pp 90.
- Ranjan, R., Mehra, B., Chaudhary, P., Agarwal, H., Jaiswal, U., **Patel, D.D.** (2013) Isolation and Screening of Extremophilic Bacteria from Soils Sample of Rajasthan. National Symposium on Recent Trends in Innovative Research at Undergraduation: Science and Society. Pp 91.
- Singh, P.K., Gupta, D., Mishra, S., Gupta, A.K., Malhotra, P., Kansal, A., Dubey, K.K., **Patel, D.D.**, Kumar, R. (2013) Semiquinone rich fraction isolated from *Bacillus* sp. INM-1 offers protection to male reproductive system of mice against γ -radiation induced toxicity. National Symposium on Recent Trends in Innovative Research at Undergraduation: Science and Society. Pp 88.

ABSTRACT PUBLISHED (International-12)

2007

- Kumar, R., Singh, P.K., **Patel, D.D.**, Bansal, D.D., Arora, R., Jain, S.K., Sharma, A., Gupta, M., Lahiri, S.S. and Tripathi, R.P. (2007): modulation of vital protein expression by semi purified radioprotective extract (REC-2006) of *Podophyllum hexandrum*: possible role of p53 gene expression in radioprotection. International Conference on Frontiers of Radiation and Photochemistry, Mahatma Gandhi University, Kottayam, pp. 191.
- Kumar, R., Bansal, D.D., **Patel, D.D.**, Singh, P.K., Mishra, S., Arora, R., Sharma, A., Lahiri, S.S. and Tripathi, R.P. (2007): Evaluation of radioprotective efficacy of Radioresistant bacterium *Bacillus* sp. INM-2 extract. 48th Annual Conference of Association of Microbiologists of India, Indian Institute of Technology Madras, Chennai, pp.96.

2008

- Singh, P.K., Kumar, R., Bansal, D.D., **Patel, D.D.**, Mohammed, A., Sharma, A., Arora, R., Gupta, M., Lahiri, S.S., Jain, S.K., Shrama, R.K. (2008): Role of P⁵³ expression in radioprotection offered by lignan rich fraction of *Podophyllum hexandrum* (REC-2006) in human hepatoma HepG2 (P⁵³⁺⁺) and Hep3B (P⁵³⁻⁻) cells. International Conference on Free Radicals and Natural Products in Health, University of Rajasthan, Jaipur, pp.41

- Singh, P.K., Kumar, R., **Patel, D.D.**, Mohammed, A., Bansal, D.D., Sharma, A., Arora, R., Gupta, M.L., Lahiri, S.S., Jain, S.K., Shrama, R.K.(2008): *Podophyllum hexandrum* fraction (REC-2006) provides radioprotection in human hepatoma cell lines by modulating cell cycle regulatory proteins expression. International Conference on Free Radicals and Natural Products in Health, University of Rajasthan, Jaipur, pp.106
- Mohammed, A., Kumar, R., Singh, P.K., **Patel, D.D.**, Bansal, D.D., Mishra, S., Lahiri, S.S., Adhikari, J.S., Dwarakanath, B.S., Kumar, A., Islam, F., Khan, B., Varshney, R. (2008): Effect of metabolic modifiers (2-DG and 6-AN) on radiosensitization of Ehrlich Ascites Tumor (EAT) in Swiss albino strain 'A' female mice: Efficacy and toxicological studies. International Conference on Free Radicals and Natural Products in Health, University of Rajasthan, Jaipur, pp.173
- Singh, P.K., Bansal, D.D., **Patel, D.D.**, Mishra, S., Mohammed, A., Sharma, A., Arora, R., and Kumar, R. (2008): P53 modulation decreased radioprotective efficacy of *Podophyllum hexandrum* extract in human hepatoma cells. Indian Journal of Radiation Research 5 (3-4): 110. ISSN 0973-0168

2010

- **Patel, D.D.**, Bansal, D.D., Mishra, S., Mohammed, A., Arora, R., Jain, S.K., Javed, S., and Kumar, R., (2010): RK-INM-008 provides protection against γ -radiation induced alteration in mice reproductive system. Advanced Biotech 10(5):135, ISSN 0973-0109.
- Bansal, D.D., **Patel, D.D.**, Mishra, S., Mohammed, A., Arora, R., Singh, T., Bhatnagar, A., Jain, S.K., Javed, S., and Kumar, R., (2010): Biodistribution studies of the radioprotective compound RK-INM-008 in BALB/c. Advanced Biotech 10(5):135, ISSN 0973-0109.
- Mishra, S., Bansal, D.D., **Patel, D.D.**, Mohammed, A., Arora, R., Sharma, A., Mishra, A., Javed, S., Tripathi, R.P., and Kumar, R., (2010): Isolation and characterization of radioresistant bacterium Bacillus sp. INM-1: possible source of radioprotective drug. International symposium on recent advances in cross-disciplinary microbiology: avenues and challenges, Ranchi, India.

2013

- **Patel, D.D.**, Bansal, D.D., Mishra, S., Jain, S.K., and Kumar. R., (2013): SQGD provides protection against lethal γ -radiation to the mice. International conference on structural and functional genomics, Thanjavaur, Tamil Nadu.
- Anjali, M., Sonal, G., **Patel, D.D.**, Rup, L. and Mansi, V., (2013): An effortless detection and identification of the uncharacterized strains of genus *Yersinia* via 16 S rRNA gene sequences. International conference on structural and functional genomics, Thanjavaur, Tamil Nadu.
- Samarath, K., Arnab, K., **Patel, D. D.**, Dhanaraj, P.S., Rup, L., and Mansi, V., (2013): An easy identification of *Proteus* species for characterizing pathogenic strains and to record non-repetitive data in the database. International conference on structural and functional genomics, Thanjavaur, Tamil Nadu.

CONFERENCE ATTENDED (National -06)

2007

- National conference on Electron Microscopy & Allied Fields and 29th Annual Meeting of EMSI held at University of Delhi from November 26-28, 2007.
- 48th Annual Conference of Association of Microbiologists of India held at Indian Institute of Technology Madras, Chennai from December 18-21, 2007.

2011

- National Conference on Ecology and Environment Management: Indian Scenario, held at Sri Venkateswara College, University of Delhi (South Campus), New Delhi from February 24-26, 2011.

2012

- The Academic Congress: Enabling the young: Redefining education. University of Delhi, Delhi, on September 6-7, 2012.

2014

- National seminar on “Environmental Conservation and Sustainable Development: Issues and Challenges” held at Indira Gandhi Centre for Human Ecology, Environmental and Population Studies, University of Rajasthan, Jaipur on June 5, 2014.
- Symposium on “AIDS: Awareness, Prevention and Challenges” held at Department of Zoology, University of Rajasthan, Jaipur on December 1, 2014.

CONFERENCE ATTENDED (International -05)

2008

- International Conference on Free Radicals and Natural Products in Health and ‘Several Annual Meeting of the Society of Free Radical Research India -2008 held at University of Rajasthan, Jaipur from February 14-16, 2008
- International Conference on Radiation Biology and Translational Research and 9th Biennial Meeting of Indian Society for Radiation Biology held at University of Rajasthan, Jaipur from November 10-12, 2008.

2010

- International Conference on Radiation Biology, Nanotechnology, Imaging and stem cell research in radiation oncology 10th Biennial Meeting of Indian Society of Radiation Biology held at Sri Ramachandra University, Chennai from November 15-17, 2010.
- International symposium on recent advances in cross-disiplinary microbiology: avenues and challenges at Ranchi, India from December 14-17, 2010.

2013

- International Conference on structural and functional genomics, Held at Sastra University, Thanjavaur, Tamil Nadu from January 4-6, 2013.

WORKSHOP ATTENDED (08)

2006

- Course on “Herbs for Health: Application in Armed Forces” held at Institute of Nuclear Medicine and Allied Sciences, Delhi, from October 30- November 3, 2006.

2008

- Workshop on Heavy Ion Radiation Biology at the Molecular Level: Current Trend and Future Prospects held at Inter University Accelerator Centre, New Delhi from October 13-14, 2008

2010

- Symposium on current trends in radiation biology and radiation countermeasures held at Institute of Nuclear Medicine and Allied Sciences, Delhi from November 19, 2010.

2011

- National Workshop on Evolutionary Perspectives in Modern Biological Teaching and Research, held at Academic Research Centre, University of Delhi from May 9-10, 2011.

2012

- ICMR workshop on Biomedical Communication held at Division of Human Resource Planning and Development, ICMR, Head Quarters, New Delhi, on April 28, 2012.
- Workshop on Immunology-‘Immunis’ held at Sri Venkateswara College, University of Delhi (South Campus) from May 14-18, 2012.

2015

- National Workshop on “Applications of Computational Tools in Medicine and Biology” held at Department of Zoology, University of Rajasthan, Jaipur on January 24, 2015.
- National Workshop on “National Workshop on Biomedical Instruments and Technology (NWBIT-2015)” held at Department of Zoology, University of Rajasthan, Jaipur on March 13-14, 2015.
- Attended 97th Orientation Programme held at UGC HRDC, University of Rajasthan, Jaipur at May 13th to June 18th 2015.
- Training programme on “Basic Course on Disaster Management” held at HCM Rajasthan State Institute of Public Administration, Jaipur on July 27-29, 2015

INVITED TALK

2015

- Delivered invited talk on topic “Microphotographic Techniques for Histopathology *ImageJ: A Useful Tool for Image Processing and Analysis*” in National Workshop on Biomedical Instruments and Technology (NWBIT-2015) held at the Department of Zoology, University of Rajasthan, March 13-14 2015.

WOKSHOP/SYMPOSIUM ORGANIZED AS MEMBER/COORDINATOR

WORKSHOP ORGANIZED as organizing member

- **Workshop for Laboratory Staff in Chemical & Life Sciences** was organized by four departments jointly (i.e., Department of Botany, Biochemistry Chemistry, and

Zoology) during March 5-6, 2012 to train Laboratory Staff of Sri Venkateswara College, University of Delhi, South Campus.

WORKSHOP ORGANIZED as Event Coordinator

- **One day Workshop** title “**ASM virtual workshop on scientific writing and publishing**” was organized by Department of Zoology, Sri Venkateswara College, University of Delhi, South Campus on Feb 6, 2013.

NATIONAL SYMPOSIUM ORGANIZED as organizing member

- **National Symposium on Recent Trends in Innovative Research at Undergraduation: Science and Society** organised during Feb 28 - March 2, 2013 by Innovative Research project Team of Sri Venkateswara College, University of Delhi, South Campus.

NATIONAL WORKSHOP ORGANIZED as organizing member

- **National workshop on Application of computational tools in Medicine and Biology (NWMB-2015)** organised during January 24, 2015 by Department of Zoology, University of Rajasthan, Jaipur.

NATIONAL WORKSHOP ORGANIZED as organizing member

- **National workshop on National Workshop on Biomedical Instruments and Technology (NWBIT-2015)** organised during March 13-14, 2015 by Department of Zoology, University of Rajasthan, Jaipur