

Dr. Arvind Kumar Tripathi

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Present Status- Working as a Faculty of Biotechnology at Center for Biotechnology Studies, A.P.S. University, Rewa from 2007.

Worked as Scientist in VRDL, Shyam Shah Medical College, Rewa on deputation basis for 2 months as per the order of Collector, Rewa (M.P.) dated on 28/04/2020.

Work involved

- Teaching Molecular Biology and Cell Biology to Masters.
- Assist of M. Phil. Students in Laboratory work (Dissertations).
- Resource Person, Ph.D. Coursework (Biotechnology)
- Organizing seminar and other curricular activities.
- In-charge, Molecular Biology Lab.
- Regular Experiments in Murine Model System.
- Standardization of Protocols and Genotyping of clinical samples.
- Analysis of Data and Preparation of Reports of ongoing projects running in lab.
- Preparation of New Research proposals for grants.

EDUCATIONAL QUALIFICATION

- **Ph.D. in Life Science**
A.P.S. University, Rewa (M.P.) in Year 2012
- **Qualified NET (CSIR) lectureship June 2013**
All India Rank 41 (Life Science)
- **Qualified ICAR NET lectureship**
(Plant Biotechnology) October 2013
- **Master of Science in Biotechnology**
Year of passing: 2007 with First Div. University 2nd Rank in university
University: A. P. S. University, Rewa, M.P.
- **Bachelor of Science**
Year of passing: 2005 with I Div.
University: A.P.S. University, Rewa, M.P.
Subject: Chemistry, Zoology, Botany.

Research Experience

VRDL(Viral Research Diagnostic Lab, SSMC, Rewa) -work experience of two months during COVID-19 as Scientist for Corona diagnosis of Viral infection.

Ph.D. in Life Sciences

Title of Research work “Study on Association of Genetic Polymorphisms of insulin resistance gene (ENPP1, PPARG2) and inflammatory genes (IL-1 β , IL-1RN, IL-4) with environmental factors in susceptibility to diabetes type 2: A Case Control study on population of Vindhyan Region” from School of Environmental Biology (Life Sciences) A.P.S. University, Rewa.

Research work of the Ph.D.

Inflammation and interrupted signaling of insulin are two key factors associated with diabetes type 2. Recently it has been established that some anti-inflammatory cytokines could be used as therapeutics which improve profile of hyperglycemia. Putting this factor in mind we worked at genetic polymorphism of IL-1B, IL-1RN and IL-4 and found allele specific association of these cytokines with diabetes type 2 in central Indian population, similarly PPARG2 and ENPP1 genetic polymorphism have investigated as they both proteins are involve in insulin signaling and sensitivity, we found association of PPARG2 polymorphism is associated with diabetes type 2.

During this investigation anthropometric and biochemical estimations were done and results suggest obesity could be strong environmental factor associated with diabetes type 2. Sample collection was done with a questionnaire based survey and physically inactive people were seems to be more susceptible for diabetes type 2.

Techniques Used- DNA/RNA isolation, PCR Amplification (Gradient, Arms and Reverse Transcription PCR), RFLP, VNTR Analysis, PAGE, SDS-PAGE, Agarose Gel Electrophoresis, Biochemical estimation, HPLC, ELISA Auto analyzer based biochemical profiling, cloning and culture of microbes.

Masters Thesis- 6 month Dissertation on the topic “Chemopreventive mechanisms of *Glycine max* (Soybean) in murine model system” during Feb to Jun 2007 from **School of Life sciences J.N.U. New Delhi.**

Research work includes-

Animal Handling - Handling of Animal Model System, Standardization of diet and preparation of drug in optimum concentration, cervical dislocation, Isolation of Hepatic and extra-hepatic organs (Liver, Brain, Kidney)

Biochemical Work- Assay of Phase 1,2 and Antioxidant enzymes, EMSA, SDS PAGE, Blotting, Cytological study by Microscopy.

Molecular Work- Isolation of RNA, Reverse transcription PCR, Agarose gel Electrophoresis.

Course designed

1. Edwin online school of learning, MHRD New Delhi India

Patent Applied : Application number 383609-001 dated 11/04/2023 designed FTIR instruments for drug development

Awards and Fellowship

1. Awarded MPCST Young Scientist fellowship for “Training of young scientist”
2. CSIR NET Lectureship (Life Science) June 2013.
3. ICAR NET (Lecturership) October 2013.
4. Young Scientist (1st Prize) Award in oral presentation in National Conference at National Conference M.S. Golwalkar science college, Rewa 20-21 April 2012.
5. Madhya Pradesh Council for Science and Technology, Best Paper Award under research scholar category, for session 2011-12.
6. Got University research fellowship award in 2012 as a topper of Masters Classes.

Membership/Editor

1. International Greener journal of Biological Science, Ikeja, Lagos.
(www.gjournals.org)
2. Journal of Applied and Natural Science ISSN 0974-9411 (Print), ISSN 2231-5209 (Online).
3. Edwin Group of Journals (Editorial member)
4. Member at Vigyan Bharti (Mahakoshal Vigyan Parishad)

Training and hands on experience-

1. Attended 15 day hand on experience training of “Learning Bioinformatics tools and Programming Techniques for Teaching and Research Purpose” organized by DBT, Govt. of India, at school of Bioinformatics, A.P.S. University, Rewa 9-21 January 2012.
2. Attended 7 days hands on workshop on “Genomics and Bioinformatics” at Department of Biotechnology, Faculty of Life Sciences AKS University Satna, 28 Nov -4 Dec 2013.
3. Attended 7 days hands on workshop on “Science popularization & malnutrition and human health” organized by MPCST Bhopal at Department of botany and Biotechnology Govt. New Science College Rewa 07-13 April 2015.
4. delivered talk as resource person in 7 days workshop on “Tools & Techniques” organized by Department of Botany & Biotechnology Govt. Girl’s P.G. College , Rewa (M.P.) January 02-08, 2016

5. Member, Organizing committee DST Inspire Camp for science students at A.P.S. University Rewa M.P. January 2017
6. Attended 2 days workshop on Real time PCR organized by Himedia laboratories Mumbai at A.P.S. University Rewa 17-18 March 2017.
7. Member, organizing committee 3 days workshop & competitive events at A.P.S. University Rewa, 26-28 March 2018

ADDITIONAL QUALIFICATIONS & CO-CURRICULAR ACTIVITIES

1. N.C.C. 'B' Certificate (National Cadet Corps)
2. Red Cross Training Camp
3. Diploma in Computer Application in 2002 with 67% marks

Known computer Packages-

MS-DOS , MS-OFFICE ,Internet Applications, Programing in C, Visual Basic, windows97/XP, foxpro, tally 5.4, bioinformatics applicable software.

Bioinformatics and Statistical Softwares-

Blast, Fasta, Primer 3 (Primer Designing), Statistical softwares (Prism 3.0-5.0, Graphpad, Sigmastat, SPSS)

Conference Attended

- Attended international conference entitled “novel stratigies towards targeted prevention and treatment of cancer.” Held on School of life science JNU, in 2008
- Presented paper in national conference on Biodiversity and Biotechnology held on M.S. Golwalkar College Rewa (16-17th November 2010).
- Presented poster in International conference entitled “Mol-Med” held on Vellore Institute of Technology, Vellore, India (19-22 Feb 2012).
- Presented paper in National conference on Biodiversity and Biodiversity held on M.S. Golwalkar science college, Rewa (13-14 March 2012).
- Presented paper in National conference entitled “Role of New Technologies in conservation of environment held on school of Environmental Biology, A.P.S. University, Rewa. (23-24 March 2012).
- Presented paper in National conference on Biodiversity and Biodiversity held on M.S. Golwalkar science college, Rewa (20-21 April 2013).

- Presented paper in National conference on herbal medicine held on department of pharmaceutical science, AKS University Satna (11-12 August 2013).
- Attended National Symposium on Recent Trends in Microbial diversity Research on 28th November 2013 at AKS University Satna MP.
- Invited as judge in intercollegiate biotechnology events Rewa Zone, organized by MP Biotechnology Council on 24-25th of February 2014.
- Participated in MPCST Young scientist congress and presented oral presentation entitled “Association of Genetic polymorphism of inflammatory genes (IL-1 β and IL-4) and Life style factors with diabetes type 2” on 28th Feb and 01 March 2014.
- Delivered talk as invited speaker in National conference entitled “Biotechnology for common man: Present and future prospects” at TATA College, Sidhi 29-30 March 2014.

Research Paper Published

1. S. Khan, U.K. Chauhan, M.K. Dwivedi, **A. K. Tripathi** and S. Shukla (2010). Cardiovascular Disease and Risk Factors. *International Journal of Biotechnology and Biochemistry* 6 ;3, 377–389
2. Dwivedi M. K., **Tripathi A. K.**, Shukla S., Khan S. and Chauhan U. K. (2011) Homocysteine and cardiovascular disease; *Biotechnology and Molecular Biology Review*: 5(5), 101-107.
3. Mrigendra Kumar Dwivedi, , **Arvind Kumar Tripathi**, Smriti Shukla, Salma Khan, Ugam Kumari Chauhan , Manoj Indurkar and Jitendra Tripathi (2011). Genetic factors influencing stroke susceptibility. *Buletin of Bioscinces*: 2011, 2(1):26-32.
4. Smriti Shukla, Chauhan U.K., **Arvind Kumar Tripathi**, Mrigendra Kumar Dwivedi and Jitendra Kumar Tripathi (2011). Rheumatoid Arthritis: A Complex Gene Environmental Interaction *IJGEB*: 2; 1: 9-21.
5. **Arvind K. Tripathi** ,Smriti Shukla, Mrigendra Kumar Dwivedi, Jitendra Kumar Tripathi, U. K. Chauhan, Samta Shukla, Manoj Indurkar and Sher Singh Parihar (2012) Obesity and ENPP1 polymorphism and their association with pathophysiology diabetes type 2 in Central Indian population *Journal of Diabetes and Endocrinology* pp.19-26DOI:10.5897/JDE12.018 (<http://www.academicjournals.org/JDE>)
6. **Arvind kumar Tripathi**, Smriti Shukla, Mrigendra Kumar Dwivedi, Jitendra Kumar Tripathi, U. K. Chauhan, Shivam Singh, Manoj Indurkar (2013) "Type 2 diabetes in a central Indian population:

association with PPARG2 P121A allele but not ENPP1 K121Q." *Advances in Genomics and Genetics* 2013;3 1–9 (Dove Medical Press www.dovepress.com.)

7 Bindi M.S, Bini M.S, **Arvind K Tripathi**, Mrigendra K Dwivedi, Smriti S and Ugam K Chauhan (2013) Nramp1 (SLC11A1) Gene Polymorphisms and Tuberculosis Susceptibility: Review *International Journal of Applied Biotechnology and Biochemistry*. Volume 3, Number 1 (2013) pp. 97-109

8 Samta Shukla, **Arvind K. Tripathi**, U.K. Chauhan, Evaluation of Antimicrobial effect of *Allium cepa* and *Zingiber officinale* on *Streptococcus mutans* isolated from Dental Caries of humans, *Periodic Research VOL.II ISSUE-II NOVEMBER-2013*

9 Smriti Shukla, **Arvind Kumar Tripathi**, Jitendra Kumar Tripathi, Manoj Indurkar, Ugam Kumari Chauhan: Role of PTPN22 and VDR gene polymorphisms in susceptibility to rheumatoid arthritis: a study from central India *Advances in Genomics and Genetics* 2014;4 79–85

10 Shrikant Kol, Amit pandey, Bharat choudhary, Parihar, S. S., Tripathi, **A. K., Tripathi**, J. K., Shivum Singh, Samta Shukla and Chauhan, U. K. “*Identification of Microbes related to crude oil components consumption and optimization of their growth parameters*” *INTERNATIONAL JOURNAL OF DEVELOPMENT RESEARCH VOL. 4, ISUE, 1, P. 2437-241, NOVEMBER, 2014*

11 Rishabh Dev Saket, Shrikant Kol, **Arvind Kumar Tripathi**, Sher Singh Parihar, Jitendra Kumar Tipathi, Ugam Kumari Chauhan “COMPLIMENT RECEPTOR TYPE – 1 (CD35) GENE POLYMORPHISM AND PLASMODIUM FALCIPERUM MALERIA” *Int J Med Res Health Sci.*2015;4(2):422-431.

12 **Arvind Kumar Tripathi**, Smriti Shukla, Jitendra Kumar Tripathi, Rishabh Dev Saket, Srikant kol, Pranav Mishra, Ugam Kumari Chauhan, and Manoj Indurkar Association of Genetic Polymorphism of Inflammatory Genes (IL-1 β and IL-4) with Diabetes Type 2 *Enliven: Journal of Genetic, Molecular and Cellular Biology* 2015 | Volume 1 | Issue 1.

13 Udita Singh, **Arvind Kumar Tripathi**, Jitendra Kumar Tripathi, Sher Singh Parihar, Rishabh Dev Saket, Ugam Kumari Chauhan, Pallavi Indurkar AND Manoj Indurkar (2015) ABCA1 (C69T) GENE POLYMORPHISM AND SERUM TSH LEVEL IN SUSCEPTIBILITY TO DIABETES TYPE 2: A STUDY ON CENTRAL INDIAN POPULATION *Journal of International Research in Medical and Pharmaceutical Sciences* 5(4): 152-160, 2015.

14 Snehlata Pandey, Archana Pandey, U K Chauhan, **Arvind Tripathi**, Jitendra Tripathi, Sanjeev Dubey Rishabh Deo Saket (2015) Recurrent Pregnancy loss and association of MTHFR, PAL1 and ACE gene

polymorphism in women .Int J Clin and Biomed Res 2015; 1 (4): 50-55

- 15 Snehlata Pandey, **Arvind Tripathi**, Jitendra Tripathi, Sanjeev Dubey (2016) CYP1A1 gene polymorphism among central Indian population and its genetic distribution Int J Sci Rep. 2016 Jan;2(1):13-17
- 16 Snehlata Pandey, Dr. Pallavi Indurkar, **Arvind Tripathi**, Jitendra Thipathi, Sanjeev Dubey (2016) A Relative Study To Find Out The Risk Population In Vindhyan Region By Carcinogen Activating And Deactivating The Gstm1 Polymorphism International Journal Of Research – Granthaalayah Vol.4 (Iss.5): May, 2016 [133-138]
- 17 Udit Singh, Jitendra Tripathi, Arti Saxena, **Arvind Kumar Tripathi**. Role of Environmental and Life style factors in Susceptibility to Diabetes Type 2, 2017 Vindhya Bharti Vol 15 No.II, 178-180
- 18 Udit Singh, Pallavi Indurkar, Arti Saxena, Pankaj Mishra, **Arvind K Tripathi** (2016) Association of IL-1RN polymorphism with diabetes type 2 in Central Indian Population Journal of Biological Sciences and Medicine. Vol 2, No 3.
- 19 Shivam Singh, Pragya Singh, Abhinai Singh , **Arvind Tripathi** , Shrikant Kaul , Riya Shrivastava, R. M. Mishra (2016) HPTLC ANALYSIS OF BERBERINE FROM TINOSPORA CORDIFOLIA STEM EXTRACT European Journal of Biomedical AND Pharmaceutical sciences Volume 3, Issue 10.
- 20 Narita Singh, Udit Singh, Arti Saxena, **Arvind K Tripathi**, Rishabh D Saket (2017) An association study of genetic polymorphoism of CTLA-4 A49G with hypothyroidism: A study from Central India. International Journal for Scientific Research & Development. V0lume 5, Issue 04.
- 21 Udit Singh, Pallavi Indurkar, Arti Saxena, Jitendra Tripathi, Pranav Mishra, Narita Singh and **Arvind K Tripathi** (2017) Anticarcinogenic effects of Soybean (Glycine max) in Mouse model system. Journal of Biological Sciences and Medicine Volume 3, Issue 02.
- 22 Pallavi Mishra, Poorva Shrivastava, Udit Singh, **Arvind Kumar Tripathi**, Rahasya Mani Mishra (2018) Role of Insertion/deletion polymorphism of ACE gene in hypertension in vindhya region. IJPLCP 9(7) 5836-5838.
- 23 Neha Singh, Arti Saxena , Udit Singh, Jitendra K. Tripathi, Vikas Khare and **Arvind K. Tripathi** (2018) Study on Association of Genetic Polymorphism of Inflammatory gene IL-1B in susceptibility to Asthma: A case control study on population of Central Indian Region.9(11 & 12) 59545958.
- 24 Arjun Kotwar ,**Arvind Tripathi** and Rishabh Dev Saket (2019) Association study of PTPN22 gene polymorphism with Rheumatoid Arthritis in Vindhyan Populaion. International Journal of Pharmacy &

Life Science. 10(4):6140-6151.

- 25 Neelam Soni ,**Arvind Tripathi** , Rishabh Dev Saket and R.M. Mishra(2019) Genetic polymorphism of SNP K121Q of ENPP1 gene and its association with hypertension in Vindhyan Populaion. International Journal of Pharmacy & Life Science. 10(4):6152-6162.
- 26 Puspendra Singh, **Arvind Tripathi**, Rishabh dev Saket and Arti Saxena. (2019). “Association Study of Urokinase or Urokinase-type plasminogen activator (uPA) with Cardiovascular Disease.” IJRAR 6(2) 183-197.
- 27 Jitendra Kumar Tripathi, **Arvind Kumar Tripathi**, Smriti Shukla, Pranava Mishra, Udit Singh, Ugam Kumari Chauhan, Devendra Nath Pandey.(2020) “The role of Cytochrome P450 (CYP) gene associated with cancer susceptibility in native population of Vindyan region.”international journal of research and analytical reviews(IJRAR),7(4),543-553.
- 28 Poorva Shrivastva, Rashmi Arnold, Pallavi Mishra, Jitendra Kumar Tripathi, Udit Singh and **Arvind Kumar Tripathi**.(2018) “A Studya of IL-18 Polymorphism with Rheumatoid Arhritis in Central Indian population.”
- 29 Puspendra Singh, **Arvind Tripathi**, Rishabh dev Saket and Arti Saxena. (2019). “Characterization of recombinant Streptokinase and its role in treatment of cardiovascular disease.” JETIR June 2019, Volume 6, Issue 6.
- 30 Pranava Mishra, Prakash Tiwari, Jitendra Kumar Tripathi, **Arvind Tripathi**, Ugam Kumari Chauhan (2021) Modulation of Superoxide dismutase and Catalase Enzyme activity in Type 2 Diabetes Mellitus cases of Vindhyan region Population, IJRAR, Volume 8, Issue 1
- 31 Pranava Mishraa, Jitendra Kumar Tripathi, **Arvind Tripathi**, Ugam Kumari Chauhan, Prakash Tiwari (2021) Modulation of Superoxide dismutase and Catalase Enzyme activity in Type 2 Diabetes Mellitus cases of Vindhyan region Population, International Journal of All Research Education and Scientific Methods (IJARESM) Volume 9, Issue 2
- 32 Neelam Soni, Ajay Kumar Pathak, Pragati Awasthi, Vandana Tiwari, Abhilasha Shrivastava and **Arvind Kumar Tripathi** (2021) ASSOCIATION OF INSERTION/DELETION POLYMORPHISM OF ACE GENE WITH HYPERTENSION IN CENTRAL INDIAN POPULATION, International Journal of Current Advanced Research Volume 10; Issue12 (B) Page No.25697-25699
- 33 **Tripathi AK**, Pathak AK, Awasthi P, Tiwari V & Shukla S. (2022) Association Study of PPARG2 Gene Polymorphism with Diabetes in Vidhyan Population of Madhya Pradesh, India. J Gene Cell Mol

Biol, 1(1): 1-9.

- 34 Pragati Awasthi , Ajay Kumar Pathak , Akash Jaiswal , Jitendra Kumar Tripathi , **Arvind Kumar Tripathi** , Neelam Soni A association study on inflammatory cytokine polymorphism (TNF alpha) with pre term birth. IOSR Journal of Dental and Medical Sciences (IOSR-JDMS) Volume 21, Issue 1 Ser.4 (January. 2022)
- 35 Namrata Pandey, **Arvind K. Tripathi***, R.M. Mishra The effects of heat stress on wheat and its vulnerability. A review International Research Journal of Plant Science (ISSN: 2141-5447) IRJPS. 13: 033. Vol. 13.
- 36 Jyotsna Mishra¹, Rajshree Pandey², Smriti Shukla³, Jitendra K. Tripathi¹, **Arvind K. Tripathi¹**. Genetic Polymorphism of IL-1 β gene and it's association with Rheumatoid arthritis in Vindhyan Population of Madhya Pradesh, India International Journal of Life Sciences (ISSN: 2277-193x) CIF: 5.411; SJIF: 6.431 A Peer Reviewed Journal Vol. 11. No.3. 2022.
- 37 Vandana Tiwari¹, Rashmi Arnold², **Arvind Kumar Tripathi¹**, Smriti Shukla³ Association Study of Genetic Polymorphism of MGP (T138C) Gene with Calcium Nephrolithiasis in Vidhyan Population Madhya Pradesh, India. International Journal of Basic and Applied Sciences (ISSN: 2277-1921) (CIF:3.658 ; SJIF: 6.823) Vol. 11. No.3. 2022.
- 38 **Arvind Kumar Tripathi^{1*}**, Ajay Kumar Pathak², Pragati Awasthi³, Vandana Tiwari¹ and Smriti Shukla⁴. Association Study of PPAR γ 2 Gene Polymorphism with Diabetes in Vidhyan Population of Madhya Pradesh, India Journal of Genetics, Cellular and Molecular Biology (JGCMB) J Gene Cell Mol Biol, 1(1): 2022
- 39 Vandana Tiwari¹, Ajay Kumar Pathak², Daya Shankar Parauha³, Akanksha Verma⁴, Rashmi Arnold⁵, **Arvind Kumar Tripathi^{6*}**. Genetic association of CaSR (Calcium Sensing Receptor) gene polymorphism with kidney stone formation in Vindhyan region of Madhya Pradesh. International Journal of Health and Clinical Research, 2022;5(2):826-834

Paper published in proceeding of conference

Arvind Kumar Tripathi, M.K. Dwivedi, Smriti Shukla, Nishant Joshi, U.K. Chauhan. (2010). *Aloe vera*: A potent modulator for chemoprevention. National Seminar on Biotechnology and Biodiversity. S S Golwalkar Science college Rewa.

Book/Chapter Published

S.No.	Book name & Author	Publisher name & status	ISBN No.	Authorship	Score
1	Genetics of Diseases Authored by Dr. Arvind Kumar Tripathi	Codex International Publisher International Publishing House	978-93- 94799-02-8	Single	12
Chapter written in books					
1	Obesity and ENPP1 polymorphism and their association with pathophysiology of diabetes type 2 in Central Indian population	Recent advances in Biotechnology Vol 2	978-81- 928063-1-0	First author	3.5
2.	In vitro crop improvement of Vitis species by advances in micropropagation	Recent advances in Biotechnology Vol 2	978-81- 928063-1-0	Co author	1.5
3	Antioxidative and chemopreventive effects of Glycine max in DMBA induced Murine model system	Medicinal plants, Environment Biotechnology Ayush and Biomedicine for human health development	978-81- 928063-8-9	Co author	1.5

PERSONAL PROFILE:

Name : Dr. Arvind Kumar Tripathi
Date of Birth : 25/04/1984
Fathers Name : Mr. R.J. Tripathi
Mother's name : Mrs. Geeta Tripathi
Gender : Male
Nationality : Indian.
Languages known : English, Hindi
Marital Status : Married.
Hobbies : Reading Books (scientific magazines),
Traveling, listening Music

REFERENCES:

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