

# Hamendra Singh Parmar

## Ph.D. (Associate Professor)

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**Date of Birth:** 14.11.1977  
**Marital status:** Married



### Short profile

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I have 21 years of research experience in biological sciences in the domain of various metabolic disorders, cross talks of the pathways and molecular oncology. I am also having more than 14 years of teaching experience to post graduate students of Biotechnology, Genetic Engineering and Bioinformatics. Besides, I have supervised 120 M.Sc. research dissertation thesis, 01 Ph.D. awarded and 03 students are registered in Ph.D. under my supervision. I have been perceived as an energetic and committed scientist and a teacher. I believe that learning is a continuous process and I am curious to understand and answer many unanswered questions. I am fluent in Hindi and English languages, while having acquaintance with French at beginner level.

### Education

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- July 2003 – Aug 2009, **Ph.D.** in Life Science from School of Life Sciences, Devi Ahilya University, Indore.
- July 2000-July 2002, **M.Sc.** in Life Science with 71.20 % from School of Life Sciences, Devi Ahilya University, Indore.
- July 1994-July 1995 & July 1998-July 2000, **B.Sc.** with 60 % from Govt. P.G. College, Jhalawar, MD.S. University, Ajmer.
- July 1995-May 1998. **Diploma in Pharmacy** with 60.60 % from B.N. College, Udaipur, Rajasthan University, Jaipur.

- Feb 2014-April 2014, **French certificate course** as an additional qualification with 'A' grade from School of Languages, Devi Ahilya University, Indore.

## Professional experience

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07/2009 – Present

**Assistant Professor, School of Biotechnology, Devi Ahilya University, Indore, M.P., India**

- **Supervised 122 M.Sc. dissertation** thesis works till to date 01 Ph.D. awarded and 03 students are pursuing Ph.D. under my supervision.
- Teaching experience of Cell Biology, Molecular Biology, Recombinant DNA Technology, Animal Cell & tissue culture technology, Stem Cell Biology, Cancer Genetics, Genomics & Proteomics and Pharmacogenomics.
- Research experience as an independent scientist including various national and international collaborative works. This work includes writing research proposals for funding, designing experiments, conducting experimentation and writing manuscripts.
- I have expertise in the area of disease biology and drug discovery in which I have worked on more than 12 animal models of various diseases, whereas I have also extensive work experience on cancer cell lines.

## Research Trainings

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03/2015 – 03/2017

**Post doctoral fellow, Faculty of Medicine, Pilsen campus, Charles University, Prague, Czech Republic (during sabbatical)**

- Cancer fibroblast-cancer cells interactions.
- Molecular, biochemical and metabolic characterization of various bladder cancer and sarcoma cell lines.
- Live cell imaging of cell-cell interactions and mitochondrial staining.
- Development of neurons from EC P19 cancer stem cells and effects of mitochondrial remodeling on A $\beta$  induced neurodegeneration.
- Gene expression studies using quantitative PCR.
- Microarray data analysis.
- DNA transfections, transwell migration, scratch assay and spheroid formation etc.
- Immunostaining.
- Mitochondrial deletion by EtBr and changes in cancer phenotype of the cells.

07/2003 – 08/2009

**Doctoral thesis work, School of Life Sciences, Devi Ahilya University, Indore, M.P., India**

- Worked on the effects of fruit peel extracts on *in vivo* (rat/mice) models of type-1 and type-2 DM, combined metabolic syndrome, hyperthyroid, hypothyroid and cardiovascular problems.
- Chemical *in vitro* as well as studies on tissue slices for evaluation of antioxidative potential of peel extracts.
- Gained expertise in animal handling, maintenance and drug administration through sub-cutaneous, intraperitoneal, intra-venous and per oral.
- Statistical analyses of data.
- Gained skills of writing manuscript and published 10 research articles in international journals of repute.

01/2002 – 07/2002

#### **Master's thesis work, NCBS, Bengaluru, India**

- In this work we tried to understand a cross talk between activated notch signaling pathway and p53 as well p53 mediated signaling pathway.
- Maintenance, culture and experimentation of transfected HaCaT keratinocytes cell lines.
- Development of HaCaT cell lines as a model to study HPV-16 &18 mediated human cervical carcinoma.

### **Academic trainings/ Faculty development programs attended**

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- Faculty Development Programme on 'Climate Change'. Organized by MP CMD agency & EPCO, Bhopal (Feb 18-19, 2019).
- Refresher Course in 'Biological Science (Core)'. Organized by HRDC, DAVV, Indore (Sep 5-25, 2018).
- Refresher course in 'Emerging Trends in Biological Sciences'. Organized by HRDC, DAVV, Indore (Feb 15, 2014 to March 7 2014).
- Management Development Programme (MDP). Sponsored by MSME, Govt. of India. Organized by MSME Development Institute, Indore (26 Dec, 2013 to Jan 06, 2014).
- Summer School on 'Disaster Management'. Organized by HRDC, DAVV, Indore (June 2013 to 8, July 2013).
- Refresher course in 'Life Science'. Organized by HRDC, DAVV, Indore (Jan 2, 2013 to Jan 22, 2013).
- Training programme on 'Transformation and Molecular Characterization of Medicinal Plant and Animals.' Sponsored by UGC, New Delhi. Organized by Department of Biotechnology, Jamia Hamdard University, New Delhi (Dec 16-Dec 21, 2010).

### **Research Grants Received**

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- Research project funded by SERB, New Delhi entitled on 'Role of mitochondrial biomass and functionality in migratory breast cancer stem cell formation in triple negative breast cancer cells: Effects of metabolic therapies versus chemotherapies (2023-2026).
- Seed money project received from University entitled on 'Metabolic modulation via targeting mitochondria: evaluation of metabolic modulating drugs on neurodegenerative disease (s)' (2021-2023).
- India-Belarus joint research project funded by Department of Science and Technology, New Delhi entitled "Effect of mitochondrial targeted peptides and modulators of mitochondrial activity on tumor cells *in vitro* and *in vivo* systems" (2019-2021).
- Research project funded from M.P. Council of Science & Technology, Bhopal entitled "Role of Inflammation in the progression of diabetes mellitus: evaluation of antidiabetic potential of anti-inflammatory drugs" (2018-2020).
- Major research project funded by University Grants Commission, New Delhi entitled "Evaluation of small polyphenolic compounds for their potential antiobesity effects" (2014-2017).

## Awards/ Prizes/ Certificates/ Fellowships received

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- Certificate of appreciation for research from DAVV with cash award of Rs. 15000/- (26.01.2024).
- International travel grant (USD 1000) received from ICDM-2023 Gyeongju, South Korea to participate in conference (19-21 Oct, 2023).
- International travel grant (USD 1000) received from KSMO-2023, Seoul, South Korea to participate in conference (7-8 Sep, 2023).
- International travel grant (USD500) received from ICOMES-2023, Seoul, South Korea to participate in conference (7-9 Sep, 2023).
- International travel grant (USD 1000) received from KINGCA Week-2022, Suwon, South Korea to participate in conference (1-3 Sep, 2022).
- International travel grant (USD 1000) received from KSMO-2022, Seoul, South Korea to participate in conference (1-2 Sep, 2022).
- Certificate of appreciation for selfless volunteer work during COVID-19 pandemic from Devi Ahilya University, Indore (26.01.2021).
- Certificate of appreciation for selfless volunteer work during COVID-19 pandemic from MGM Medical College, Indore (11.09.2020).
- Young Scientist Award-India-International Science Festival-Biology (Young Scientist Conference-2019, Nov 5-8)-First Prize (5-8 Nov. 2019) (5000 INR).

- Certificate of appreciation for research from Devi Ahilya University, Indore-based on h-index and citations (26.01.2017).
- International Postdoctoral Research Fellowship (March 2015-March 2017) from Faculty of Medicine at Pilsen, Charles University, Prague, Czech Republic (USD 30,000).
- Best Science Research Award from Madhya Pradesh Council of Science and Technology (MPCOST), Bhopal.
- Project associate under UGC funded major research Project (May 2006-May 2009).
- CSIR-UGC-NET-LS from Council of Scientific and Industrial Research-University Grants Commission (CSIR-NET) for lectureship (2005).
- GATE (2004) jointly conducted by Indian Institute of Science and Indian institute of technology.

## Research credentials

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### Web links:

<http://www.biotech.dauniv.ac.in/staff.php>

<https://www.ncbi.nlm.nih.gov/pubmed/?term=Parmar+HS>

<http://www.scopus.com/authid/detail.url?authorId=14631129700>

<https://orcid.org/0000-0002-9866-2760>

<https://scholar.google.co.in/citations?hl=en&user=uZT56sgAAAAJ>

<https://vidwan.inflibnet.ac.in/myprofile>

## Research Publications in journals (All international)

1. Rani A, Patra P, Verma TP, Singh A, Jain AK, Jaiswal N, Narang S, Mittal N, **Parmar HS**, Jha HC. Deciphering the Association of Epstein-Barr Virus and Its Glycoprotein M Peptide with Neuropathologies in Mice. **ACS Chem Neurosci**. 2024 Mar 4. doi: 10.1021/acchemneuro.4c00012. **(Impact factor 5.0)**.

2. Tripathi V, Jaiswal P, Verma R, Sahu Khageswar, Majumder SK, Chakraborty S, Jha HC, **Parmar HS**. Therapeutic influence of simvastatin on MCF-7 and MDA-MB-231 breast cancer cells *via* mitochondrial depletion and improvement in chemosensitivity of cytotoxic drugs. **Advances in Cancer Biology - Metastasis** 2023; **9**: 100110

3. Baral B, Saini V, Tandon A, Singh S, Rele S, Dixit AK, **Parmar HS**, Meena AK, Jha HC. SARS-CoV-2 Envelope protein induces necroptosis and mediates inflammatory response in lung and colon cells through Receptor Interacting Protein Kinase 1. **Apoptosis** 2023; **28**: 1596-1617 **(Impact factor 7.2)**.

4. Baral B , Muduli K , Jakhmola S, Indari O, Jangir J, Rashid AH, Jain S, Mohapatra AK, Patro S, Parida P, Misra N, Mohanty AP, Sahu BR, Jain A, Elangovan S, **Parmar HS** , Tanveer M, Mohakud NK, Hem Chandra Jha. Redefining lobe-wise ground-glass opacity in COVID-19 through deep learning and its correlation with biochemical parameters. **IEEE Journal of Biomedical and Health Informatics** 2023; **27**: 2782-2793 (**Impact factor 7.70**).
5. Kashyap D, Varshney N, Baral B, Kandpal M, Indari O, Jain AK, Chatterji D, Kumar S, **Parmar HS**, Sonawane A, Jha HC. Helicobacter pylori infected gastric epithelial cells bypass cell death pathway through the oncoprotein Gankyrin. **Advances in Cancer Biology-Metastasis** 2023; **7**: 100087.
6. Kaushik A, Sangtani R, Parmar HS \* Bala K. Algal Metabolites: Paving the Way Towards New Generation Anti-diabetic Therapeutics. **Algal Research** 2023; **69**: 102904. (**Impact factor 5.10**).
7. Tripathi V, Jaiswal P, Sahu K, Majumder SK, Kashyap D, Jha HC, Dixit AK, **Parmar HS\***. Repurposing of metabolic drugs and mitochondrial modulators as an emerging class of cancer therapeutics with a special focus on breast cancer. **Advances in Cancer Biology-Metastasis** 2022; **6**: 100065.
8. Jaiswal P, Tripathi V, Assaiya A, Kashyap D, Dubey R, Singh A, Kumar J, Jha HC, Sharma R, Dixit AK, **Parmar HS\***. Anti-cancer effects of sitagliptin, vildagliptin, and exendin-4 on triple-negative breast cancer cells via mitochondrial modulation. **BIOCELL** 2022; **46**: 2645-2657. (**Impact factor 1.20**).
9. Tripathi V, Jaiswal P, Assaiya A, Kumar J, **Parmar HS\***. Anti-Cancer Effects of 5-Aminoimidazole-4-Carboxamide-1- $\beta$ -D-Ribofuranoside (AICAR) on Triple-Negative Breast Cancer (TNBC) Cells: Mitochondrial Modulation may be an Underlying Mechanism. **Curr Cancer Drug Targets** 2022; **22**: 245-256. (**Impact factor 3.5**).
10. **Parmar HS\***, Nayak A, Kataria S, Tripathi V, Jaiswal P, Gavel PK, Jha HC, Bhagwat S, Dixit AK, Lukashevich V, Das AK, Sharma R. Restructuring the ONYX-015 adenovirus by using spike protein genes from SARS-CoV-2 and MERS-CoV: Possible implications in breast cancer treatment. **Med Hypotheses** 2022; **159**: 110750. (**Impact factor 4.70**).
11. Kashyap D, Panda M, Baral B, Varshney N, Sajitha R, Bhandari V, **Parmar HS**, Prasad A, Jha HC. Outer membrane vesicles: An emerging vaccine platform. **Vaccines** 2022; **10**: 1578. (**Impact factor 7.80**).
12. Kashyap D, Varshney N, **Parmar HS**, Jha HC. Gankyrin: At the crossroads of cancer diagnosis, disease prognosis, and development of efficient cancer therapeutics. **Advances in Cancer Biology -Metastasis** 2022; **4**: 100023.
13. Anshu AK, Kumar V, Rani A, Tayalkar T, **Parmar HS**. Phosphatidylcholine content in soybean: Genetic variability and the effect of growing year. **Notulae Scientia Biologicae** 2022; **14**: 10994.

- 14.** Anshu AK, Tayalkar T, Rani A, Kumar V, **Parmar HS**. Genetic polymorphism of soybean genotypes with contrasting level of phosphatidylcholine, protein and lipoxygenase-2. **Journal of Applied Biology & Biotechnology** 2022; **10**: 1-5.
- 15.** Jaiswal P, Tripathi V, Nayak A, Kataria S, Lukashevich V, Das AK, **Parmar HS\***. A molecular link between diabetes and breast cancer: Therapeutic potential of repurposing incretin-based therapies on breast cancer. **Curr Cancer Drug Targets** 2021; **10**: 829-848. (Impact factor **3.5**).
- 16.** Kripnerová M, **Parmar HS**, Šána J, Kopková A, Radová L, Sopper S, Biernacki K, Jedlička J, Kohoutová M, Kuncová J, Peychl J, Rudolf E, Červinka M, Houdek Z, Dvořák P, Houfková K, Pešta M, Tůma Z, Dolejšová M, Tichánek F, Babuška V, Leba M, Slabý O, Hatina J. Complex interplay of genes underlies invasiveness in fibro-sarcoma progression model. **Journal of Clinical Medicine** 2021; **10**: 2297. (Impact Factor **3.90**).
- 17.** **Parmar HS\***, Nayak A, Gavel PK, Tripathi V, Jaiswal P, Jha H, Bhagwat S, Sharma S. Cross talk between COVID-19 and breast cancer. **Curr Cancer Drug Targets** 2021; **21**: 575-600. (Impact factor **3.5**).
- 18.** Sangtani R, Ghosh A, Jha HC, **Parmar HS\***, Bala K. Potential of algal metabolites for the development of broad-spectrum antiviral therapeutics: Possible implications in COVID-19 therapy. **Phytotherapy Research** 2021; **35**: 2296-3516. (Impact factor **7.20**).
- 19.** Rani A, Jakhmola S, Karnati S, **Parmar HS**, Jha HC. Potential entry receptors for human  $\gamma$ -herpes virus into epithelial cells: A plausible therapeutic target for viral infections. **Tumor Virus Research** 2021; **12**: 200227. (Impact factor **4.30**).
- 20.** Choudhary V, Gupta A, **Parmar HS**, Sharma R. Therapeutically effective covalent spike protein inhibitors in treatment of SARS-CoV-2: A review. **Journal of Proteins and Proteomics** 2021;**15**: 1-14.
- 21.** Gavel PK, Kumar N, **Parmar HS**, Das AK. Evaluation of a Peptide-Based Coassembled Nanofibrous and Thixotropic Hydrogel for Dermal Wound Healing. **ACS Applied Bio Materials** 2020; **3**: 3326–3336. (Impact factor **4.7**).
- 22.** Gavel PK, **Parmar HS**, Tripathi V, Kumar N, Biswas A, Das AK. Investigations of AntiInflammatory Activity of a Peptide-Based Hydrogel using Rat Air Pouch Model. **ACS Appl Mater Interfaces** 2019; **11**: 2849-2859 (Impact factor **9.50**).
- 23.** Kripnerova M, **Parmar HS**, Pesta M, Kohoutova M, Kuncova J, Drbal K, Rajtmajerova M, Hatina J. Urothelial Cancer Stem Cell Heterogeneity. **Adv Exp Med Biol.** 2019; **1139**: 127-151 (Impact factor **3.650**).
- 24.** Gavel PK, Dev D, **Parmar HS**, Bhasin S, Das AK. Investigations of Peptide-Based Biocompatible Injectable Shape-Memory Hydrogels: Differential Biological Effects on Bacterial and Human Blood Cells. **ACS Appl Mater Interfaces** 2018; **10**: 10729-10740. (Impact factor **9.50**).

- 25. Parmar HS\***, Houdek Z, Pešta M, Václava Č, Dvořák P, Hatina J. Protective effect of aspirin against oligomeric A $\beta$ 42 induced mitochondrial alterations and neurotoxicity in differentiated EC P19 neuronal cells. **Curr. Alzheimer Res** 2017; **14**: 810-819. (**Impact factor 3.30**).
- 26. Parmar HS\***, Assaiya A, Agrawal R, Tiwari S, Mufti I, Jain N, Manivannan E, Banerjee T, Kumar A. Inhibition of A $\beta$  (1-42) oligomerization, fibrillization and acetyl cholinesterase activity by some anti-inflammatory drugs: An in vitro study. **Anti-Inflammatory & Anti-Allergy Agents in Medicinal Chemistry** 2017; **15**: 191-203.
- 27.** Nijampurkar B, Qureshi F, Jain N, Banerjee T, Kumar A, **Parmar HS\***. Anti-inflammatory role of thyroid hormones on rat air pouch model of inflammation. **Inflammation & Allergy-Drug Targets** 2015; **14**: 117-24.
- 28.** Das AK, Maity I, **Parmar HS**, McDonald TO, Konda M. Lipase-Catalyzed Dissipative SelfAssembly of a Thixotropic Peptide Bolaamphiphile Hydrogel for Human Umbilical Cord StemCell Proliferation. **Biomacromolecules** 2015; **16**:1157-1168 (**\*Impact factor-6.20**).
- 29.** Maity I, **Parmar HS**, Rasale DB, Das AK. Self-programmed nano vesicle to nanofiber transformation of a dipeptide appended bolaamphiphile and its dose dependent cytotoxic behaviour. **Journal of Materials Chemistry B** 2014; **2**: 5272-5279 (**\*Impact factor-7.0**).
- 30. Parmar HS\***, Bhinchar MK, Bhatia M, Chordia N, Raval I, Chauhan DS, Manivannan E, Jatwa R, Kumar A. Study on Gluco-regulatory potential of glimepiride sulphonamide using *in silico*, *in vitro* and *in vivo* approaches. **Current Pharmaceutical Design** 2014; **20**: 5212-5217. (**Impact factor 3.40**).
- 31.** Juneja L, **Parmar HS\***. Ovalbumin induced allergic rhinitis and development of prediabetes to rats: possible role of Th2 cytokines. **Inflammation & Allergy-Drug Targets** 2013; **12**:199-205.
- 32.** Tiwari V, **Parmar HS\***. Diabetogenic effects of *Parthinium hysterophorous* induced allergic rhinitis. **Inflammation & Allergy-Drug Targets** 2012; **11**: 492-8.
- 33. Parmar HS\***, Jain P, Chauhan DS, Bhinchar MK, Munjal V, Yusuf M, Choube K, Tawani A, Tiwari V, Manivannan E, Kumar A. DPP-IV inhibitory potential of naringin: An *in silico*, *in vitro* and *in vivo* study. **Diabetes Research and Clinical Practice** 2012; **97**: 105-111. (**\*Impact factor 5.10**).
- 34.** Jain M, **Parmar HS\***. Evaluation of antioxidative and anti-inflammatory potential of hesperidin and naringin on the rat air pouch model of inflammation. **Inflamm Res.** 2011; **60**: 483-91. (**\*Impact factor 6.70**).
- 35.** Sethi A, **Parmar HS\***, Kumar A. The effect of aspirin on atherogenic diet-induced diabetes mellitus. **Basic Clin Pharmacol Toxicol.** 2011; **108**: 371-77. (**\*Impact factor 3.10**).
- 36. Parmar HS\***, Dixit Y, Kar A. Fruit and vegetable peels: Paving the way towards the development of new generation therapeutics. **Drug Discoveries & Therapeutics** 2010; **4**: 314-325 (Review).
- 37. Parmar HS\***, Kar A. Protective role of *Mangifera indica*, *Cucumis melo* and *Citrullus vulgaris* peel extracts in chemically induced hypothyroidism. **Chemico-Biological interactions** 2009a; **177**: 254-258 (**\*Impact factor 5.10**).



- 38. Parmar HS\***, Kar A. Comparative analysis of free radical scavenging potential of several fruit peel extracts by in vitro methods. **Drug Discoveries & Therapeutics** 2009b; **3**: 49-55.
- 39. Parmar HS\***, Kar A. Possible amelioration of atherogenic diet induced dyslipidemia, hypothyroidism and hyperglycemia by the peel extracts of *Mangifera indica*, *Cucumis melo* and *Citrullus vulgaris* fruits in rats. **Biofactors** 2008a; **33**: 13-24 (\*Impact factor 6.0).
- 40. Parmar HS\***, Kar A. Medicinal values of fruit peels from *Citrus sinensis*, *Punicagranatum*, and *Musa paradisiaca* with respect to alterations in tissue lipid peroxidation and serum concentration of glucose, insulin, and thyroid hormones. **Journal of Medicinal Food** 2008b; **11**: 376-381. (\*Impact factor 2.40).
- 41. Parmar HS\***, Kar A. Antiperoxidative, antithyroidal, antihyperglycemic and cardioprotective role of *Citrus sinensis* peel extract in male mice. **Phytotherapy Research** 2008c; **22**: 791-795. (\*Impact factor 7.20).
- 42. Parmar HS\***, Kar A. Antidiabetic potential of *Citrus sinensis* and *Punicagranatum* peel extracts in alloxan treated male mice. **Biofactors** 2007a; **31**: 17-24 (\*Impact factor 6.0).
- 43. Parmar HS\***, Kar A. Atherogenic diet induced diabetes mellitus: involvement of thyroid hormones. **European Journal of Pharmacology** 2007b; **570**: 244-248. (\*Impact factor 5.0).
- 44. Parmar HS\***, Kar A. Protective role of *Citrus sinensis*, *Punica granatum* and *Musa paradisiaca* peels against diet-induced atherosclerosis and thyroid dysfunctions in rats. **Nutrition Research** 2007c; **27**: 710-718. (\*Impact factor 4.50).
- 45. Jatwa R, Parmar HS, Panda S, Kar A.** Amelioration of corticosteroid-induced type 2 diabetes mellitus by rosiglitazone is possibly mediated through stimulation of thyroid function and inhibition of tissue lipid peroxidation in mice. **Basic & Clinical Pharmacology & Toxicology** 2007; **101**: 177-180. (\*Impact factor 3.10).
- 46. Parmar HS, Panda S, Jatwa R, Kar A.** Cardio-protective role of *Terminalia arjuna* bark extract is possibly mediated through alterations in thyroid hormones. **Pharmazie** 2006; **61**:793- 795.

## Abstracts published in journals (All international)

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- 1. Jaiswal P, Parmar HS.** A molecular link between diabetes and breast cancer: Anti-cancer effects of incretin based antidiabetic therapies on triple-negative breast cancer cells via mitochondrial modulation. **Diabetes & Metabolism Journal** 2023; **47(S1)**: 34 (OP1-2) (\*Impact factor 5.90).
- 2. Parmar HS.** Therapeutic influence of simvastatin on MCF-7 and MDA-MB-231 breast cancer cells via mitochondrial depletion and improvement in chemosensitivity of cytotoxic drugs (PP171). **ESMO Open** 2023; **8(1)**: PP171. (Impact Factor 7.30).

3. Hatina J, Kripnerova M, **Parmar HS**, Houdek Z, Dvorak P, Houkova K, Pesta M, Kuncova J, Sopper S, Radova L, Sana J, Slaby O. Insight into sarcoma biology from sarcoma cell line progression series. **Research Journal of Oncology**. 2020, **4**: 1-2. (Abstract Published).
4. P Vohradska, M Kripnerova, K Houfkova, **HS Parmar**, J Kuncova, M Hora, O Hes, M Rajtmajerova, K Drbal, M Pesta, I Subrt, J Hatina. Integrated cytogenetic and biological analysis of selected cell culture models of urothelial bladder malignancies. **FEBS OPEN BIO** 2019, **9**: 360-360. (\***Impact factor 2.60**).
5. Hatina J, Kripnerova M, **Parmar HS**, Houdek Z, Dvorak P, Houfkova K, Pesta M, Kuncova J, San J, Slaby O. PO-163 Identification of candidate genes underlying soft tissue sarcoma progression using a progression series of murine fibrosarcoma cell lines. **ESMO Open**. 2018; **3**: A84-A85. (Abstract published) (**Impact Factor 7.30**).

## Book chapters published in edited books

1. Hatina J, **Parmar HS**, Kripnerova M, Hepburn A, Heer R. Urothelial Carcinoma Stem Cells: Current Concepts, Controversies, and Methods. **Methods Mol Biol**. 2018; 1655:121-136.
2. **Parmar HS\***. Insights into the plant insulin, In: **Recent progress in medicinal plants, Metabolic disorders Diabetes Part-II** (Stadium Press LLC, USA.) 2018; 46: 90-106.

## Books published

1. **Parmar HS\***, Kar A. Study of Some Fruit Peel Extracts On Various Metabolic Disorders (ISBN-13: 978-3659932380). Lap Lambert Academic Publishing, Germany 2016.
- 2 **Parmar HS\***, **Jain H**. Diet induced metabolic defects and protective role of thyroid hormones (ISBN: 978-3-659-51264-3). Lap Lambert Academic Publishing, Germany 2014.

## Papers published in conferences/ Symposia

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1. Jaiswal P, **Parmar HS**. A molecular link between diabetes and breast cancer: Anti-cancer effects of incretin based antidiabetic therapies on triple-negative breast cancer cells *via* mitochondrial modulation (Oral Presentation). ICDM-2023 Gyeongju, South Korea (19-21 Oct, 2023).
2. Tripathi V, **Parmar HS\***. Therapeutic influence of simvastatin on MCF-7 and MDA-MB-231 breast cancer cells *via* mitochondrial depletion and improvement in chemosensitivity of cytotoxic drugs (E-Poster). KSMO-2023, Seoul, South Korea (7-8 Sep, 2023).
3. Tripathi V, **Parmar HS \***. Therapeutic influence of fenofibrate on triple negative breast cancer (TNBC) cells MDA-MB-231 *via* mitochondrial depletion (Guided Poster). ICOMES 2023, Seoul, South Korea (7-9 Sep, 2023).

4. **Parmar HS\***. Reengineering of ONYX-015 oncolytic adenovirus by addition of ‘S’ protein genes from SARS-CoV-2 and MERS-CoV along with insertion of deleted nucleotides of gp19k gene: Possible implications in breast cancer treatment *via* targeting cancer heterogeneity (E-poster). KSMO-2022, Seol, South Korea (1-2 Sep, 2022).
5. **Parmar HS\***. Protective effects of etoricoxib on dextran sodium salt induced colitis in mice (E-poster). KINGCA WEEK-2022, Suwon, South Korea (1-3 Sep, 2022).
6. **Parmar HS\***. Mitochondrial DNA Deletion In Migratory MDA-MB231 Breast Cancer Cells Increases Susceptibility For Drug Induced Loss Of Viability And Cell Death, But Promotes Expression Of Classical Stemness Markers Oct4-Sox2-Nanog And Transcriptional Factors Involved In Mitochondrial Biogenesis (E-poster). ICBMT-2022, Busan, South Korea (1-3 Sep, 2022).
7. Novakovskaya SA, **Parmar HS**, Das AK, Ghosh T, Khrustaleva TA, Rudnichenko Yu A, Lukashevich VS. Ultrastructural characterization of mitochondria of cells of solid form of Ehrlich's carcinoma under the action of a peptide modeling mitochondrial activity // News of Biomedical Sciences – 2022. – V.22 – № 1, P. 109-110.
8. Khrustaleva TA, Rudnichenko Yu A, Basalay AA, **Parmar HS**, Das AK, Ghosh T, Lukashevich VS. Antitumor effects of mitochondrial targeted peptide in the solid form of Ehrlich’s carcinoma. *In* International Scientific Conference on ‘Physico-chemical biology as a basis of modern medicine’, Minsk, Belarus (May 21, 2021).
9. Parmar HS. Role of cost efficient drugs in costly diseases. Indian-International Science Festival-2019, Kolkata (Nov. 5-8, 2019).
10. Kripnerová M., **Parmar H.S.**, Leba M., Kuncova J, Šána J, Slabý O, Hatina J. Identification of candidate genes responsible for soft tissue sarcoma progression using a progression series of murine fibrosarcoma cell lines, *In* Biological Days with the subtitle “Biomedical Present: From basic Research to Clinical Application. Congress Center o the Slovak Academy of Sciences in Smolenice, Slovakia (23-25, October, 2017).
11. Kripnerová M., **Parmar H.S.**, Pešta M., Kuncová J., Hatina J. A new cell culture models of urothelial carcinoma links mitochondrial physiology to multidrug resistance, *In*: 12th International Congress of Cell Biology, Prague Congress Centre, Czech Republic (July 21-25, 2016).
12. **Parmar HS**, Kar A. (2006). Assessment of antiperoxidative activity in some fruit peel extracts: an in vitro and in vivo study, *In*: International Conference on Toxicology, Toxicoproteomics and Occupational Health (ICTTOH) & 26 th annual meeting of Society of Toxicolgy (STOX) India, October 9-11, Jiwaji University, Gwalior, MP, India.

## Resource person/ Invited lectures/ Session chaired

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1. Resource person in 14 Sessions of 07 days long value added course on “Molecular Biology, Recombinant DNA Technology and Functional Genomics (May 15-21, 2024), Sponsored by DAVV, Indore.

2. Delivered invited talk on 'Restructuring of ONYX015 oncolytic virus to treat breast cancer efficiently' In: Indo-Swiss Workshop organized by IIT, Indore and sponsored by SPARC (17/03/2024).
3. Delivered invited talk on 'Cancer is a micro-evolutionary process ' In: Seminar organized by Department of Botany, Govt. College Rau, Indore (08/02/2024).
4. Delivered invited talk on 'Tools for gene expression analysis ' In: Refresher course on Bioscience and Biotechnology, organized by JNVU, Jodhpur (07/02/2024).
5. Delivered invited talk on 'Cancer prevalence, prevention and cancer awareness' at School of Biotechnology, DAVV, Indore (04/02/2024).
6. Delivered invited talk on 'Repurposing of Metabolic drugs as an emerging class of cancer therapeutics' In: National Seminar on "Trends in Biomedical Research: Advances and Challenges" organized by Central Ayurveda Research Institute, Kolkata (29-30 Jan, 2024).
7. Delivered invited talk on 'Insights into budgeting for research proposals' In: Seven days workshop on 'Developing and fetching research proposals' organized by Bherulal Patidar Govt. P.G. College, Mhow (17-25 April, 2023).
8. Delivered invited talk on 'Tools for comprehensive gene expression studies' in Refresher course in Research Methodology (Life Science Core) (IDC) from 14/03/2023-27/03/2023 (14.03.2023).
9. Resource person and coordinator of 07 days long value added hands on training of 'Enzymes, gene manipulation and functional genomics' of 60 hours duration for M.Sc. Biotechnology, Genetic Engineering and Bioinformatics students of School of Biotechnology, DAVV from 20-26 February, 2023.
10. Delivered invited talk on 'How to develop novel research hypothesis' in Refresher course in Research Methodology (Science Faculty) (IDC) from 17/01/2023-30/01/2023 (23.01.2023).
11. Delivered invited talk on 'How to choose a research topic' in Refresher course in Research Methodology (Science Faculty) (IDC) from 17/01/2023-30/01/2023 (18.01.2023).
12. Resource person and coordinator of 05 days long value added hands on training of '**Mammalian cell culture techniques**' of 40 hours duration for M.Sc. Biotechnology, Genetic Engineering and Bioinformatics students of School of Biotechnology, DAVV from 9-13 November, 2022.
13. Delivered invited talk on „ Prevalence of cancers in India & need of preventive measures" on the occasion of National Cancer prevention day at Govt. College Rau, Indore (07.11.2022).
14. Delivered invited talk on "Need of interdisciplinary, multidisciplinary & transdisciplinary approaches in Material Sciences" in National conference on 'Recent trends in Material sciences' sponsored by SERB, New Delhi held at Kirodimal Govt. Arts & Science College Raigarh, Chattisgarh (06.11.2022).

- 15.** Delivered invited talk on „ Importance of Ayurvedic life style and its impact in epigenetics and health” at CARI, Kolkata (under Ayurveda day celebration on 19.10.2022).
- 16.** Delivered invited talk on ” Methodology of next generation sequencing” In: SERB Sponsored Workshop under’ Karyashala: Accelerate Vigyan’ at IIT, Indore (12-17 July, 2022).
- 17.** Delivered expert lecture on ”Tools in functional genomics”, In: National workshop on ‘Research Methodology and IPR’. Organized by Central Ayurveda Research Institute, Kolkata, CCRAS, Ministry of AYUSH, Govt. of India (15.03.2022).
- 18.** Delivered expert lecture on ‘पुरातन भारत में विज्ञान और वर्तमान में इसकी प्रासंगिकता ‘ In Vigyan Sarvatra Pujiyate’ sponsored by Ministry of Culture, Govt. of India and MPCOST, organized by Vigyan Bharti at IET, DAVV, Indore (24.02.2022).
- 19.** Chaired two sessions of research presentations of the participants in „ Refresher Course in Chemistry” Organized by HRDC, DAVV, Indore (21-22, January, 2022).
- 20.** Co-convener in Global MP Scientists & Technocrats Meet held at SGSITS, Indore (Dec 23, 2021). Organized by Vigyan Bharti Malwa Prant under “Madhya Pradesh Vigyan Sammelan & Expo-2021.
- 21.** Invited lecture on” Restructuring the ONYX-015 adenovirus by using spike protein genes from SARS-CoV-2 and MERS-CoV: Possible implications in breast cancer treatment” in Certificate course on ‘Analytical aspects of Chemistry for Industry’. Organized by Department of Chemistry & Pharmaceutical Chemistry, Holkar Science College, Indore (17.12.2021).
- 22.** Knowledge as a tool to convert fear into courage: interactive session on COVID-19. Organized by IET, DAVV, Indore (23.07.2021)
- 23.** Co-coordinator in ‘Global MP Scientists & Technocrats Meet’ under Madhya Pradesh Vigyan Sammelan and Expo (MPVS-2021)” held at SGSITS, Indore (23.12.2021).
- 24.** Molecular biology, immunology, diagnosis, pharmacological therapies and vaccination of COVID-19. International Webinar on “ Vaccination: Key Weapon in Fight Against COVID-19”. Organized by Govt. P.G. College & Govt. Adarsh Girls College, Sheopur, M.P. (28.05.2021).
- 25.** Panel expert and invited talk on “Fight against COVID-19”. Webinar on “Fight against COVID-19” Organized by SAGE University, Indore (15.05.2021).
- 26.** Interdisciplinary, Multidisciplinary & Transdisciplinary Approaches in Research. Workshop on Research Methodology. Organized by SAGE University, Indore (April 09-11, 2021).
- 27.** Molecular, Pharmacological and Clinical Aspects of COVID-19. Certificate course organized by Govt. Holkar Science College, Indore (25.03.2021).
- 28.** Cellular, Molecular and Clinical aspects of COVID-19. National Seminar on “An insight into COVID-19 Biology-Labs to Clinic. Organized by Govt. College Timarni, Dist-Harda, MP, India (22.03.2021).

- 29.** How to choose a research topic in Science? Refresher course in Research Methodology (For Sciences). Organized by HRDC, DAVV, Indore (15.12.2020-28.12.2020).
- 30.** Methodologies for relative gene expression. Refresher course in Life Sciences. Organized by HRDC, DAVV, Indore (28.10.2020-10.11.2020).
- 31.** Insights into the diagnosis of COVID-19. Refresher course in Life Sciences. Organized by HRDC, DAVV, Indore (28.10.2020-10.11.2020).
- 32.** Animal cell culture studies. Refresher course in Life Sciences. Organized by HRDC, DAVV, Indore (28.10.2020-10.11.2020).
- 33.** Chaired a technical session in “National E-Conference: Health Con’2020” on ‘Diabetes in India: Emerging Realities’ organized by Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore (Sep25-26, 2020).
- 34.** Different methodologies for COVID-19 testing. SAGE Summer training Program on “Molecular Diagnostics”. Organized by SAGE University, Indore (July 30- Aug 03, 2020).
- 35.** Testing of COVID-19. 03 Days International webinar on “COVID-19 Pandemic-Prevention and Management”. Organized by Govt. Holkar Science College (June 04-06, 2020).
- 36.** Chaired a technical session in an International conference organized by Department of Chemistry, Christian Eminent College, Indore (31.05.2020).
- 37.** Tools for comparative gene expression studies. National Workshop on “Medicinal Bioinformatics”. Organized by Bioinformatics-sub Centre, School of Biotechnology, DAVV, Indore (February 08-09, 2019).
- 38.** Methodology for gene expression studies. Workshop on “Chemi-informatics & Biophysical Techniques. Organized by Govt. Holkar Science College, Indore (Feb 01-12, 2019).
- 39.** Coordinator and resource person in hands on training on “Molecular Drug Discovery and Disease Biology”. Organized by School of Biotechnology, sponsored by UGC-XII plan grant, DAVV (March 22-24, 2019).
- 40.** Coordinator and resource person in hands on training on “Basic Animal Tissue Culture Techniques”. Organized by School of Biotechnology, sponsored by UGC-XII plan grant, DAVV (Nov. 12-15, 2018)”.
- 41.** Animal cell culture-Techniques & Applications. An invited lecture organized by SCMIPS, Indore (11.10.2018).
- 42.** Protective Effect of Aspirin Against Oligomeric A $\beta$ 42 Induced Mitochondrial Alterations and Neurotoxicity in Differentiated EC P19 Neuronal Cells. UGC–SAP–DRS sponsored Seminar organized by Department of Life Sciences, Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon. (2-3, Feb 2018).

**43.** Resource person in hands on training on 'Enzyme and Enzyme technology'. Sponsored by MPCOST, Bhopal and organized by School of Biotechnology, DAVV, Indore (Oct 23-Nov 8, 2017).

**44.** Resource person in hands on training on 'Enzyme and Enzyme technology'. Sponsored by MPCOST, Bhopal and organized by School of Biotechnology, DAVV, Indore (April 2-16, 2014).

**45.** DPP-IV inhibitory potential of Naringin: an *in silico*, *in vitro* and *in vivo* study. National conference on role of Biotechnology in Human Welfare (Jan 23-24, 2014).

**46.** Resource person in hands on training on 'Enzyme and Enzyme technology'. Sponsored by MPCOST, Bhopal and organized by School of Biotechnology, DAVV, Indore (June 13-28, 2012).

**47.** Research Methodology-Different facets of Gene and experimentation on nitric oxide signaling. Workshop on Research methodology organized by Academic Staff College, DAVV, Indore (22.02.2011).

**48.** Microarray and SAGE for gene expression profiling. In National workshop on 'Structural Bioinformatics & Systems Biology', sponsored by DBT, New Delhi. Organized by Bioinformatics sub centre and School of Biotechnology (25-27, Nov. 2009).

## Personal skills

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- Fast learner, detail oriented with an exceptionally strong work ethics.
- Highly motivated to plan, design and perform experimentation.
- Optimist and confident.
- Risk taking and managing behaviour.
- Good communicator and listener.
- Ability to motivate and convince.
- Disciplined and punctual.
- Ability to work as a team member and also as a leader.

## Referees

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**1.** Dr. Jiří Hatina, Associate Professor, Department of Biology, Faculty of Medicine Pilsen, Charles University, Prague, Czech Republic.

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**2.** Dr. Anand Kar, Professor, School of Life Sciences, Devi Ahilya University, Indore-452001.

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**3.** Dr. Anjana Jajoo, Professor, School of Life Sciences, Devi Ahilya University, Indore-452001, India.

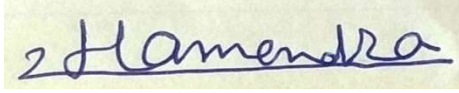
E-mail: [anjanajajoo@hotmail.com](mailto:anjanajajoo@hotmail.com)

## Declaration

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I hereby declare that the information furnished above is true to the best of my knowledge and belief. I will be responsible for any discrepancy found in them.

DATE & Place: 29.04. 2024, Indore.

A handwritten signature in blue ink on a light green background. The signature reads "Dr. Hamendra" in a cursive script, with a horizontal line drawn underneath the name.

Dr. Hamendra Singh Parmar