

Name: Dr. Heena Sachdeva

Designation: Assistant Professor

Specialization: Parasitology and Immunology

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Education

M.Sc. Zoology (2007, Punjabi University, Patiala)

M.Phil. Zoology (2008, Panjab University, Patiala)

Ph.D. (5th March, 2014, Panjab University, Patiala)

Title of Ph.D. Thesis: Evaluation of immunomodulatory activity and protective efficacy of herbal drugs *Withania somnifera*, *Tinospora cordifolia* and *Asparagus racemosus* in combination with cisplatin against murine visceral leishmaniasis.

Professional Experience:

Department of Zoology, M.M Modi College, Patiala, India (15 January, 2018 to till date)

Department of Zoology, Government College for Girls, Patiala, India (07 September, 2017 to 12 January, 2018)

Department of Zoology, Sri Guru Granth Sahib World University, Sri Fatehgarh Sahib, India (01 February, 2017 to 31 May, 2017).

Department of Zoology, Mata Gujri College, Sri Fatehgarh Sahib, India (05 July, 2016 to 09 January, 2017).

Department of Zoology, Mata Gujri College, Sri Fatehgarh Sahib, India (01 July, 2015 to 06 May, 2016).

Department of Zoology, Mata Gujri College, Sri Fatehgarh Sahib, India (24 July, 2014 to 19 May, 2015).

Teaching Interests:

- Parasitology
- Parasite Immunology
- Medical Zoology and Medical Laboratory Technology

Publications

1. Sukhir Kaur, Heena Sachdeva, Shivani Dhuria, Meenakshi Sharma and Tejinder Kaur "Antileishmanial effect of cisplatin against murine visceral leishmaniasis". *Parasitology International*. (2010) **59(1):62-69.**

https://s3.amazonaws.com/academia.edu.documents/48603931/j.parint.2009.10.00620160905-17703-v1wtot.pdf?response-content_disposition=inline%3B%20filename%3DAntileishmanial_effect_of_cisplatin_agai.pdf&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWOWYYGZ2Y53UL3A%2F20200304%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20200304T090955Z&X-Amz-Expires=3600&X-Amz-SignedHeaders=host&X-Amz-Signature=e1129c5bebf39b430777e47d2ea79b7edd9b996ff7e85d0f152ba25b41c9d16

2. Heena Sachdeva, Rakesh Sehgal and Sukhbir Kaur “Studies on the protective and immunomodulatory efficacy of *Withania somnifera* along with cisplatin against experimental visceral leishmaniasis”. *Parasitology Research*. (2013) **112(6)**:2269-2280. <https://link.springer.com/article/10.1007/s00436-013-3387-2>
3. Sukhbir Kaur, Gurpreet Kaur , Heena Sachdeva and Tejinder Kaur “In vivo evaluation of the antileishmanial activity of two immunomodulatory plants, *Emblica officinalis* and *Azadirachta indica* in BALB/c mice”. *International Journal of Ayurvedic and Herbal medicines*. (2013) **3:1**, 1066-1079. <https://innovareacademics.in/journals/index.php/ijpps/article/view/11726>
4. Heena Sachdeva, Rakesh Sehgal and Sukhbir Kaur “*Asparagus racemosus* ameliorates cisplatin induced toxicities and augments its antileishmanial activity by immunomodulation *in vivo*”. *Parasitology International*. (2014) **63(1)**:21-30. <https://www.sciencedirect.com/science/article/pii/S138357691300158X>
5. Heena Sachdeva, Rakesh Sehgal and Sukhbir Kaur “*Tinospora cordifolia* as a protective and immunomodulatory agent in combination with cisplatin against murine visceral leishmaniasis”. *Experimental Parasitology*. (2014) **137**:53-65. <https://www.sciencedirect.com/science/article/abs/pii/S0014489413003093>
6. Sukhbir Kaur , Kalpana and Heena Sachdeva “Protection against experimental visceral leishmaniasis by immunostimulation with herbal drugs *Withania somnifera* and *Asparagus racemosus*”. *Journal of medical Microbiology*. (2014) **63**: 1328-1338. https://www.microbiologyresearch.org/docserver/fulltext/jmm/63/10/1328_jmm072694.pdf?expires=1583314139&id=id&accname=guest&checksum=026313730EE38D7039B041D1F44CE1E5
7. Sukhbir Kaur, Kanika Bhardwaj and Heena Sachdeva “Antileishmanial efficacy of *Boerhaavia diffusa* and *Ocimum sanctum* against experimental visceral leishmaniasis”. *Indian Journal of Experimental Biology*. (2015) **53**:522-529. <http://nopr.niscair.res.in/handle/123456789/31911>
8. Heena Sachdeva “Evaluation of changes in splenic lymphoid tissues during visceral leishmaniasis infection in BALB/c mice and after cisplatin in combination with herbal drug treatment”. *International Journal of Advanced Research in Science, Engineering*

and Technology. (2015) **2(7)**: 810-813. <http://www.ijarset.com/volume-2-issue-7-july-15.html>

9. Heena Sachdeva “An insight into the treatment of Leishmaniasis. *International Journal of Advanced Research in Biological Sciences*. (2015) **2(9)**:1-8. <https://ijarbs.com/pdfcopy/sept2015/ijarbs1.pdf>
10. Heena Sachdeva, and Manish Sharma “Diagnosis of Visceral Leishmaniasis. *International journal of advanced research in science, engineering and technology*. (2016) **3(12)**: 3096-3097. <http://www.ijarset.com/upload/2016/december/19.html>
11. Heena Sachdeva, and Manish Sharma “Reservoir and transmission of Visceral Leishmaniasis”, *International Journal of Scientific Research in Science and Technology*. (2017), **3(1)**: 59-60. <http://ijsrst.com/paper/767.pdf>
12. Heena Sachdeva, and Manish Sharma “Organ specific immunity in visceral Leishmaniasis”. *International Journal for Science and Advance Research in Technology*. (2017) **3(1)**: 79-80. <http://ijsart.com/Home/IssueDetail/8217>
13. Heena Sachdeva, and Manish Sharma “Role of cytokines in Leishmaniasis”. *International Journal for Science and Advance Research in Technology*. (2017) **3(1)**: 81-82. <http://ijsart.com/Home/IssueDetail/8218>
14. Heena Sachdeva and Sukhbir Kaur “ Cisplatin along with herbal drug treatment reduces the percentage of regulatory T cells and decreased the severity of experimental visceral leishmaniasis”. *Journal of Microbiology Immunology and Infection*. (2018) **51(4)**:435-445. <https://www.ncbi.nlm.nih.gov/pubmed/28655574>

Review Articles

1. **Heena Sachdeva** and Manish Sharma, “Clinical manifestations of leishmaniasis: a review”, *International journal of advanced research in science, engineering and technology*. (2016) **3(12)**: 3096-3097. http://www.ijarset.com/upload/2016/december/19_IJARSET_heena.pdf
2. **Heena Sachdeva** “Animal models of Leishmaniasis: A review”. *International journal of recent scientific research*. (2016) **7(1)**:8276-8278 <https://www.recentscientific.com/animal-models-leishmaniasis-review>
3. **Heena Sachdeva** “An insight into Zika Virus: A review, *International journal of recent scientific research*. (2016) **7(3)**: 9635-9636. <http://www.recentscientific.com/insight-zika-virus-review-article?page=4>
4. Heena Sachdeva “Life cycle of *Leishmania donovani*; causative agent of visceral leishmaniasis: A review, *International Journal of Scientific research in Science, Engineering and Technology*. (2016) **2(1)**:84-85. <http://ijsrset.com/IJSRSET162121>
5. **Heena Sachdeva**, and Manish Sharma. “*Leishmania*-Host Interaction and Survival Strategies "A Review". *International Journal for Science and Advance Research in Technology*. (2017) **3(1)**: 41-43. <http://ijsart.com/Home/IssueDetail/8200>
6. **Heena Sachdeva** and Manish Sharma “A review of current treatment strategies based on cisplatin for leishmaniasis, *Annals of Parasitology*, (2022; 68(3):435-445.
7. Manish Sharma and **Heena Sachdeva** “DNA Based Identification of Scuttle Flies (Diptera: Phoridae) & their forensic Importance: A Review, *International Journal of Entomology Research*, (2023), 8(2) 140-143.

Book/Book chapter:

1. Heena Sachdeva and Manish Sharma, Efficacy of *Withania somnifera* in the Treatment of Leishmaniasis: A Review, 2024, In Recent Trends in Life Sciences, Vol. IX, Akinik Publications, New Delhi.

Conference / Seminars

A) Resource Person / Invited Lectures:

1. Delivered awareness lecture on Menstruation Hygiene at GSS School Nandpur Keshon, Patiala on May 02, 2022.
2. Delivered awareness lecture on Menstruation Hygiene at GMSS School, Pheelkhana on May 06, 2022.
3. Delivered two invited lectures entitled “Human Defense Mechanism and Techniques in Immunology” and Neglected Tropical Diseases” organized by Department of Zoology, S.D. College Barnala under DBT Star College Scheme on March 20, 2024

B) Paper presented:

1. Heena Sachdeva and Sukhbir kaur (2010) “Comparison of antileishmanial activity of two doses of cisplatin in *L. donovani* infected BALB/C mice.” in National Conference on Advances in Biological Sciences at Department of Zoology, Panjab University, Chandigarh, India March 29-30 (2010)
2. Heena Sachdeva, Rakesh Sehgal and Suhbir Kaur (2011) “Attenuation of cisplatin induced toxicity by *Tinospora cordifolia* against murine visceral leishmaniasis “ in 23rd National Congress of Parasitology Anna University, Chennai, India November 18-20
3. Heena Sachdeva, Rakesh Sehgal and Suhbir Kaur (2012) “Immunomodulatory activity of *Tinospora cordifolia* in cisplatin treated *Leishmania donovani* infected BALB/c mice” in International conference on Entomology at Punjabi University, Patiala, India February 17-19
4. Heena Sachdeva and Sukhbir Kaur (2013) “Flow cytometric analysis of effect of cisplatin in combination with herbal drugs against experimental visceral leishmaniasis” in XII International conference on Vector and Vector Borne Diseases at Udaipur, Rajasthan organized by Mohanlal Sukhadia University, Udaipur, Rajasthan and National Academy of Vector and Vector Borne Diseases, Bhubaneshvar , India September 16-18
5. Heena Sachdeva and Sukhbir Kaur (2018) “In vitro antileishmanial evaluation of cisplatin using MTT assay” in National Conference on Recent Advances in Chemical, Biological and Environmental Sciences at MM Modi College, Patiala, India February 09- 10
6. Heena Sachdeva (2019) “Effect of cisplatin in combination with herbal drugs against murine visceral leishmaniasis” in National Conference on Recent Advances in Chemical, and Environmental Sciences at MM Modi College, Patiala, India April 11- 12
7. Heena Sachdeva (2020) "Effect of cisplatin alone and in combination with herbal drugs on Delayed type hypersensitivity responses in murine visceral

leishmaniasis", in 3rd National Conference on Innovations in Bioscience and Technology (NCIBT) held at Multani Mal Modi College, Patiala on March 07, 2020.

8. A paper entitled Post COVID-19 Syndrome: A Questionnaire Based Study to Evaluate Post COVID Recovery Symptoms in Non Hospitalized Patients, has been presented in 11th National Conference on Recent Advances in Chemical, Biological and Environmental Sciences (RACES) held at Multani Mal Modi College, Patiala on April 12-13, 2023

C) Attended

1. Attended the National symposium on Biodiversity, Cell and Molecular Biology at Department of Zoology, Panjab University, Chandigarh 26-27 February 2008.
2. Participated in one day International Virtual Conference on Novel Corona and Novel Challenges: Life Ahead with Covid-19, organized by Sri Guru Gobind Singh College, Sector 26, Chandigarh on June 03, 2020.
3. Participated in online National Webinar on Covid-19 Pandemic: Impact & Strategies for Education Sector in India organized by Gitanjali Teachers Training College, Murshidabad, in Association with "The Progress" on June 3, 2020.
4. Participated in one day Online Capacity Building Program on Basic Tools and Techniques for Online Teaching organized by Centre for E-Learning and Teaching Excellence & UGC-Human Resource Development Centre, Punjabi University Patiala on August 9, 2020.
5. Participated in online Lecture on the theme Covid-19 and the State of State Finances organized by Department of Social Sciences, Multani Mal Modi College, Patiala on November 10, 2020.
6. Member of Organizing Committee of one day online National Webinar on the theme Solid Waste Management organized by Multani Mal Modi College, Patiala, on November 10, 2020.
7. Attended Webinar on "Virtual Labs" organized by Centre for E-Learning and Teaching Excellence (CELTE), Punjabi University Patiala on April 17 2023.
8. Attended a Symposium and Participated in the Open House Discussion on NEP2020-Policy Praxis organized by IQAC, Multani Mal Modi College Patiala in collaboration with The Council for Teacher Education Foundation (CTEF)-Punjab& Chandigarh Chapter on May 8 2023.

Workshops and training courses

1. Attended Faculty Development Program at Multani Mal Modi College, Patiala. (20-26 July, 2018).
2. Attended Faculty Development Program at Multani Mal Modi College, Patiala. (17-22 July, 2019).
3. INDO-US Seminar-Cum-Demonstrative Workshop on Animal cell culture, DNA fingerprinting and cell marker identification at Panjab University, Chandigarh (13-15 December, 2007).

4. Attended and Volunteered in the National seminar-cum-workshop on Exploring New Vistas in Biodiversity Research for Sustainable Development at Department of Zoology, Panjab University, Chandigarh. (22-24 January, 2011).
5. Attended Four Week Induction Programme organized by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching from June 04- July 01, 2020.
6. One Week Online FDP on Research Methodology for Social Sciences Organize by Council for Teacher Education Foundation in collaboration with Multani Mal Modi College, Patiala from July, 20-26th , 2020.
7. Attended 7- Days Virtual National Level Capacity Building Programme on Integration of Pedagogy & Technology in Teaching-Learning organised by Multani Mal Modi College Patiala in collaboration with Council for Teacher Education Foundation (CTEF) during July 13-19, 2021.
8. Attended Four Week Induction/ Orientation Programme for Faculty in Universities/ Colleges/ Institutions of Higher Education Organized by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry of Human Resource Development, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching from December 20, 2021 to January 19, 2022.
9. Attended Two Weeks Refresher Course in Zoology organized by Ramanujan College, New Delhi during April 10-24, 2023.
10. Attended Short-Term Course on NEP Orientation and Sensitization Programme organized by UGC-Malaviya Mission Teacher Training Centre (HRDC), Punjabi University, Patiala from January 16-25, 2024.
11. Attended One Week Faculty Development Programme "Developing MOOCs" (25 - 31 December, 2023)" organised by Teaching learning Centre, Ramanujan College , University of Delhi, under the Ministry of Education sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) scheme in collaboration with Multani Mal Modi College Patiala and Dr CV Raman University Chhattisgarh during March 24-30, 2024.

Achievements, Awards and Recognitions

- Successfully organized (Part of organizing committee) a seven days Workshop on **Modern Techniques in Biological Sciences** at MM Modi College, during July 3- August 6, 2018.
- **Awarded best poster** for abstract entitled "In vivo leishmanicidal..murine visceral leishmaniasis" at 21st National Congress of Parasitology, Department of Zoology, Panjab University, Chandigarh. (14-16 November, 2009).

Resources Developed (No Any)

Membership

- Life Member, Indian Academy of Vector Borne Diseases
- Member Board of Under Graduate Studies Department of Zoology and Environmental Sciences, Punjabi University, Patiala (22.11.2019).
<https://drive.google.com/file/d/1xIgp6PehmboHgyN1BI9eWUJ75QHJ1-dD/view>