# CURRICULUM VITAE

**Dr. Prashant Kesharwani**
Assistant Professor & Ramanujan Fellow
Department of Pharmaceutics
School of Pharmaceutical Education and Research,
Jamia Hamdard (A Government-aided Deemed University)
An Institution of Eminence (IoE) declared by GOI
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## EDUCATION:

**PhD,** Pharmaceutics, Department of Pharmaceutical Sciences, Dr. H. S. Gour Central University, Sagar (M.P.), India 2014.

**M. Pharma.,** Pharmaceutics, Department of Pharmaceutical Sciences, Dr. H. S. Gour Central University, Sagar (M.P.), India 2009.

**B. Pharma.,** Pharmaceutical Sciences, Department of Pharmaceutical Sciences, Dr. H. S. Gour Central University, Sagar (M.P.), India 2007.

## PROFESSIONAL EXPERIENCE:

| | |
|---|---|
| December 2018-Till date | **Assistant Professor**, Department of Pharmaceutics, School of Pharmaceutical Education and Research, Jamia Hamdard (Deemed to be University), New Delhi, INDIA-110062 |
| April 2017-December 2018 | **SERB Ramanujan Fellow**, CSIR-Central Drug Research Institute (CDRI), Lucknow, 226031, U.P., India |
| September 2016- April 2017 | **Lecturer**, School of Pharmacy, Department of Pharmaceutical Technology, International Medical University (IMU), Kuala Lumpur, Malaysia |
| September 2014-July 2016 | **Postdoctoral Fellow**, Department of Pharm. Sciences, Eugene Applebaum College of Pharmacy and Health Sciences; Wayne State University, Detroit (MI) USA |
| January 2012-August 2014 | **ICMR-SRF**, Dr. Hari Singh Gour Central University, Sagar (M.P.), India |
| October 2010-January 2012 | **Guest faculty**, Dr. Hari Singh Gour Central University, Sagar (M.P.), India |
| January 2010-July 2010 | **Management Trainee**, Indoco Remedies Ltd. Navi Mumbai, India |
| June 2007-August 2007 | **Lecturer**, Adina Institute of Pharmaceutical Sciences, Sagar M.P |

## RESEARCH GRANT:

1. **ICMR Extramural project]: [Jamia Hamdard, New Delhi]**
   PI: Dr Prashant Kesharwani Duration: April 2019-March 2022
   Title: Survivin siRNA targeted poly(propylene imine) dendrimer loaded with doxorubicin and lycopene against triple negative breast cancer
   Budget: 37 Lac

2. **[SERB Ramanujan fellowship]: [CSIR-CDRI Lucknow & Jamia Hamdard, New Delhi]**
   PI: Dr Prashant Kesharwani Duration: April 2017- March 2020
   Title: Aptamer anchored smart multifunctional dendrimer-BSA nanoarchitectures for the effective treatment of drug resistant non-small cell lung cancer
   Budget: 53.40 Lac

3. **[UGC start up grant]: [Jamia Hamdard, New Delhi]**
   PI: Dr Prashant Kesharwani Duration: September 2019- August 2021
   Title: RGD-engineered poly (propylene imine) dendrimers conjugated to iron oxide nanoparticles for targeted tumor magnetic resonance imaging (MRI)
   Budget: 10 Lac

4. **[ICMR Extramural project]: [Jamia Hamdard, New Delhi]**
   PI: Dr Prashant Kesharwani Duration: April 2020-March 2023
   Title: Aptamer engineered smart multifunctional dendrimer-BSA nano-architectures targeting stem cell marker CD133 for triple-negative breast cancer therapy
   Budget: 35 Lac

5. **[ICMR Extramural project]: [Jamia Hamdard, New Delhi]**
   PI: Dr Prashant Kesharwani Duration: March 2022-February 2025
   Title: Cell death inducing targeted therapy enhanced by amphiphilic co-block polymeric nanoscale drug delivery tool for triple-negative breast cancer therapy
   Budget: 37 Lac

6. **[ICMR Extramural project]: [Jamia Hamdard, New Delhi]**
   PI: Dr Prashant Kesharwani Duration: March 2022-February 2025
   Title: Strategic viral-mimicking, DNA-ejecting polyplex as a novel nanotherapeutic tool for breast cancer therapy
   Budget: 35.18 Lac

## PROFESSIONAL RECOGNITION, AWARDS, FELLOWSHIPS RECEIVED:

### *INTERNATIONAL AWARDS:*

1. Listed in the "***WORLD'S TOP 2% SCIENTISTS***" list 2022 in the field of "Pharmacology & Pharmacy" published by Stanford University.
2. Listed in the "***WORLD'S TOP 2% SCIENTISTS***" list 2021 in the field of "Pharmacology & Pharmacy" published by Stanford University.
3. Awarded international award "***USERN Laureates - 2023***" in Biological Sciences [*among more than 90,000 applications from all over the world and applications have been carefully reviewed by more than 70 top 1% well-known scientists*].

4. Third position on poster presentation in the Graduate and Postdoctoral Research Symposium (23 March 2016) at Wayne State University, Graduate school, Detroit, MI, USA (**INTERNATIONAL**).

### *NATIONAL AWARDS:*

1. Awarded most prestigious "***SERB-RAMANUJAN FELLOWSHIP***".
2. I am the only candidate who has joined Jamia Hamdard with 5 advanced salary increments.
3. Young Innovator Award (Gold medal) in 1st International Conferences on Innovative Pharmacy & Pharmaceutical Sciences 2012 (ICIPPS-2012).
4. Awarded first position on oral presentation in the DST & DBT sponsored national seminar on "Nanobiotechnology" (2013) at Guru Ramdas Khalsa, Institute of Science & Technology, (M.P.).
5. Awarded "Excellence Research Award" (2014) second position in the MPCST sponsored national seminar at Adina Institute of Pharmaceutical Sciences, Sagar (M.P.)
6. Awarded "fellowship for training of Young Scientist" (2014-15) of M.P. Council of Science and Technology at the 29th M.P. Young Scientist Congress.
7. Awarded twice "fellowship for training of Young Scientist" (2013-14) of M.P. Council of Science and Technology at the 28th M.P. Young Scientist Congress.
8. International Travel Award from DST (New Delhi) 2012
9. International Travel Grant from INSA (CCSTDS, Chennai) 2012
10. International Travel Award/Grant from CSIR (New Delhi) 2018.
11. Awarded ICMR-SRF fellowship for pursuing PhD 2012.
12. Awarded AICTE-JRF fellowship for pursuing M. Pharma 2007.

### PUBLICATION DETAILS:

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|---|---|---|
| **Total number of publications** | **:** | **423** |
| **Research / Review articles** | **:** | **347** |
| **Book published as Editor** | **:** | **19** |
| **Book chapters** | **:** | **57** |
| **Cumulative impact factor** | **:** | **2331.217** |
| **Total citations** | **:** | **16029** |
| **h-index** | **:** | **66** |
| **i-10 index** | **:** | **252** |


https://scholar.google.co.in/citations?user=DJkvOAQAAAAJ&hl=en

### *TOP 25 PUBLICATIONS:*

1. **Kesharwani P***, Choudhury H, Meher JG, Pandey M, Gorain B. Dendrimer-entrapped gold nanoparticles as promising nanocarriers for anticancer therapeutics and imaging. Progress in Materials Science, June 2019:103:484-508 **(IMPACT FACTOR: 48.580)**.

2. **Kesharwani P**, Banerjee S, Padhye S, Sarkar FH, Iyer AK. Hyaluronic acid engineered nano-micelles loaded with 3, 4-difluorobenzylidene curcumin for targeted killing of CD44+ stem-like pancreatic cancer cells. Biomacromolecules, Aug 2015;16:3042–53. **(Impact factor 6.988)**
3. **Kesharwani P**, Jain K, Jain NK. Dendrimer as nanocarrier for drug delivery. Prog Polym Sci, Feb 2014;39:268-307. **(IMPACT FACTOR 29.190)**
4. **Kesharwani P**, Banerjee S, Padhye S, Sarkar FH, Iyer AK. Parenterally administrable nano-micelles of Difluorobenzylidene curcumin difluorinated for treating pancreatic cancers. Colloids Surf. B Biointerfaces, Aug 2015;132:138–45. **(Impact factor 5.268)**
5. P. Kesharwani*, R. Ma, L. Sang, M. Fatima, A. Sheikh, M.A.S. Abourehab, N. Gupta, Z.-S. Chen, Y. Zhou, Gold nanoparticles and gold nanorods in the landscape of cancer therapy, Mol. Cancer 2023 221. 22 (21 June 2023) 1–31. https://doi.org/10.1186/S12943-023-01798-8. **(Impact factor: 41.444)**
6. P. Kesharwani*, A. Sheikh, M.A.S. Abourehab, R. Salve, V. Gajbhiye, A combinatorial delivery of survivin targeted siRNA using cancer selective nanoparticles for triple negative breast cancer therapy, J. Drug Deliv. Sci. Technol. 80 (February 2023) 104164. https://doi.org/10.1016/J.JDDST.2023.104164. **(Impact factor: 5.062)**
7. **Kesharwani P**, Iyer AK, Banerjee S, Gupta U, MCI Mohd Amin, Sarkar FH, Padhye S. PAMAM dendrimers as promising nanocarriers for RNAi therapeutics. Material Today, Dec 2015;18:565–72. **(IMPACT FACTOR: 32.072)**
8. **Kesharwani P**, Tekade RK, Gajbhiye V, Jain K, Jain NK. Cancer targeting potential of some ligand-anchored poly(propylene imine) dendrimers: a comparison. Nanomedicine. 2011;7(3):295-304. **(Impact factor 6.692)**
9. **P. Kesharwani***, M. Fatima, V. Singh, A. Sheikh, W.H. Almalki, V. Gajbhiye, A. Sahebkar, Itraconazole and Difluorinated-Curcumin Containing Chitosan Nanoparticle Loaded Hydrogel for Amelioration of Onychomycosis, Biomimetics 2022, Vol. 7, Page 206. 7 (21 November 2022) 206. https://doi.org/10.3390/BIOMIMETICS7040206. **(Impact factor: 3.743)**
10. W. Qin, J. Chandra, M.A.S. Abourehab, N. Gupta, Z.S. Chen, P. Kesharwani*, H.L. Cao, New opportunities for RGD-engineered metal nanoparticles in cancer, Mol. Cancer. 22 (25 May 2023) 87. https://doi.org/10.1186/S12943-023-01784-0/FIGURES/8. **(Impact factor: 41.444)**
11. P. Gupta, A. Sheikh, M.A.S. Abourehab, P. Kesharwani, Amelioration of Full-Thickness Wound Using Hesperidin Loaded Dendrimer-Based Hydrogel Bandages, Biosensors, (June 2022), Vol. 12, Page 462. 12 (2022) 462. https://doi.org/10.3390/BIOS12070462. **(Impact factor: 5.743)**
12. Amjad MW[1], **Kesharwani P[1]**, Mohd Amin MCI, Iyer AK. Recent advances in the design, development, and targeting mechanisms of polymeric micelles for delivery of siRNA in cancer therapy. Progress in Polymer Science, January 2017;64:154–81. **(IMPACT FACTOR 29.190)**
13. N. Parveen, A. Sheikh, N. Molugulu, S. Annadurai, S. Wahab, P. Kesharwani*, Drug permeation enhancement, efficacy, and safety assessment of azelaic acid loaded SNEDDS hydrogel to overcome the treatment barriers of atopic dermatitis, Environ. Res. 236 (Nov 2023) 116850. https://doi.org/10.1016/J.ENVRES.2023.116850. **(Impact factor 8.3)**
14. L. Zeng, B.H.J. Gowda, M.G. Ahmed, M.A.S. Abourehab, Z-S. Chen, C. Zhang, J. Li, P. Kesharwani*. Advancements in nanoparticle-based treatment approaches for skin cancer therapy. Mol Cancer 22, 10 (2023). https://doi.org/10.1186/s12943-022-01708-4 **(Impact factor: 41.444)**
15. A. Sheikh, M.A.S. Abourehab, A.S. Tulbah, P. Kesharwani*, Aptamer-grafted, cell membrane-coated dendrimer loaded with doxorubicin as a targeted nanosystem against epithelial cellular adhesion molecule (EpCAM) for triple negative breast cancer therapy, J. Drug Deliv. Sci. Technol. 86 (Sep 2023) 104745. https://doi.org/10.1016/J.JDDST.2023.104745. **(Impact factor 5)**

16. Z. Liu, N. Parveen, U. Rehman, A. Aziz, A. Sheikh, M.A. S. Abourehab, W. Guo, J. Huang, Z. Wang, P. Kesharwani*. Unravelling the enigma of siRNA and aptamer mediated therapies against pancreatic cancer. Mol Cancer 22, 8 (2023). https://doi.org/10.1186/s12943-022-01696-5 **(Impact factor: 41.444)**
17. X. Fu, U. Rehman, L. Wei, Z.-S. Chen, M.A.S. Abourehab, P. Kesharwani*, Z.-H. Cheng, Silver-dendrimer nanocomposite as emerging therapeutics in anti-bacteria and beyond, Drug Resist. Updat. 68 (2023) 100935. https://doi.org/10.1016/J.DRUP.2023.100935. **(Impact factor: 22.841)**
18. P. Musyuni, J. Bai, A. Sheikh, K.S. Vasanthan, G.K. Jain, M.A.S. Abourehab, V. Lather, G. Aggarwal, P. Kesharwani*, D. Pandita, Precision medicine: Ray of hope in overcoming cancer multidrug resistance, Drug Resist. Updat. 65 (December 2022) 100889. https://doi.org/10.1016/J.DRUP.2022.100889. **(Impact factor: 22.841)**
19. M. Abavisani, R. Khayami, M. Hoseinzadeh, M. Kodori, P. Kesharwani*, A. Sahebkar, CRISPR-Cas system as a promising player against bacterial infection and antibiotic resistance, Drug Resist. Updat. 68 (2023) 100948. https://doi.org/10.1016/J.DRUP.2023.100948. **(Impact factor: 22.841)**
20. **Kesharwani P**, Gajbhiye V, Jain NK. A review of nanocarriers for the delivery of small interfering RNA. Biomaterials. Oct 2012;33(29):7138-50. **(Impact factor 14)**
21. **Kesharwani P**, Tekade RK, Jain NK. Generation dependent cancer targeting potential of poly(propyleneimine) dendrimer. Biomaterials. July 2014;35(21):5539-48. **(Impact factor 15)**
22. **Kesharwani P**, Xie L, Maob G, Padhye S, Iyer AK. Hyaluronic acid-conjugated polyamidoamine dendrimers for CD44 target mediated 3,4-difluorobenzylidene curcumin delivery for treating pancreatic cancer. Colloids Surf. B Biointerfaces, Dec 2015;136:413-23. **(Impact factor 5.268)**
23. S.A. Hazari, A. Sheikh, M.A.S. Abourehab, A.S. Tulbah, **P. Kesharwani***, Self-assembled Gallic acid loaded lecithin-chitosan hybrid nanostructured gel as a potential tool against imiquimod-induced psoriasis, Environ. Res. 234 (Oct 2023) 116562. https://doi.org/10.1016/J.ENVRES.2023.116562. **(Impact factor 8.3)**
24. **Kesharwani P**, Iyer AK. Recent advances in dendrimer-based nanovectors for tumor-targeted drug and gene delivery. Drug Discov Today, May 2015;20(5):536-547. **(Impact factor 7.851)**
25. Mahor A, Prajapati SK, Verma A, Gupta R, Iyer AK, **Kesharwani P***. Moxifloxacin loaded gelatin nanoparticles for ocular delivery: Formulation and in-vitro, in-vivo evaluation. J Colloid Interface Sci. Dec 2016;483:132-8. **(Impact factor 9.9)**

**b. INTERNATIONAL BOOK PUBLISHED (as an Editor):**

1. Mishra V, **Kesharwani P** (Editor), Mohd Amin MCI, Iyer AK. Nanotechnology-based approaches for targeting and delivery of drugs and genes. Elsevier, eBook ISBN: 9780128097182, Paperback ISBN: 9780128097175, Imprint: Academic Press, Published Date: 25th May 2017, Page Count: 552
2. **Kesharwani P (Editor)**. Nanotechnology Based Approaches for Tuberculosis Treatment. Elsevier, Academic Press, eBook ISBN: 9780128226117 ; Paperback ISBN: 9780128198117, Published Date: 2nd June 2019, Page Count: 370
3. **Kesharwani P** (Editor), Gupta U. Nanotechnology-based targeted drug delivery systems for brain tumors. Elsevier. eBook ISBN: 9780128122495, Paperback ISBN: 9780128122181, Imprint: Academic Press, Published Date: 24th April 2018, Page Count: 478
4. **Kesharwani P** (Editor). Nanotechnology-Based Targeted Drug Delivery Systems for Lung Cancer. Elsevier, Academic Press, eBook ISBN: 9780128163672, Paperback ISBN: 9780128157206, Imprint: Academic Press, Published Date: 31st January 2019, Page Count: 340

5. **Kesharwani P (Editor),** Paknikar KM, Gajbhiye V. Polymeric Nanoparticles as a Promising Tool for Anti-cancer Therapeutics. Paperback ISBN: 9780128169636 ; eBook ISBN: 9780128173312, Imprint: Academic Press, Published Date: 1st July 2019, Page Count: 350
6. **Kesharwani P (Editor)**, Chopra S (Editor), Dasgupta A (Editor). Drug Discovery Targeting Drug-Resistant Bacteria. Elsevier, Academic Press, Paperback ISBN: 9780128184806 ; eBook ISBN: 9780128184813, Published Date: 1st May 2020, Page Count: 432
7. **Kesharwani P (Editor)**, Taurin S (Editor), Greish K (Editor). Theory and Applications of Nonparenteral Nanomedicines. 1st Edition. Paperback ISBN: 9780128204665, Imprint: Academic Press, Published Date: 1st September 2020, Page Count: 540
8. **Kesharwani P (Editor)**. Dendrimer-Based Nanotherapeutics. Publisher : Academic Press Inc (19 April 2021), Paperback : 484 pages, ISBN: 9780128212516
9. **Kesharwani P (Editor),** Singh KK (Editor). Nanoparticle Therapeutics: Production Technologies, Types of Nanoparticles, and Regulatory Aspects. Publisher : Academic Press Inc (11 November 2021), Paperback : 672 pages, eBook ISBN: 9780128209189. Paperback ISBN: 9780128207574
10. **Kesharwani P (Editor),** Jain NK (Editor). Hybrid Nanomaterials for Drug Delivery (Woodhead Publishing Series in Biomaterials). 1st Edition - February 2, 2022, eBook ISBN: 9780323903561, Paperback ISBN: 9780323857543
11. **Kesharwani P (Editor).** Combination Drug Delivery Approach as an Effective Therapy for Various Diseases. Academic Press Inc. 1st Edition - March 27, 2022. Paperback ISBN: 9780323858731; eBook ISBN: 9780323858762.
12. **Kesharwani P (Editor).** Poly(lactic-co-glycolic acid) (PLGA) Nanoparticles for Drug Delivery (Micro & Nano Technologies) Paperback – Import, 1 March 2023. Prashant Kesharwani (Editor). Publisher: Elsevier - Health Sciences Division, No. of pages: 532, Published: March 2, 2022; Paperback ISBN: 9780323912150; eBook ISBN: 9780323914314
13. **Kesharwani P (Editor); Khaled Greish (Editor).** Polymeric Micelles for Drug Delivery (Woodhead Publishing Series in Biomaterials), Publisher: Woodhead Publishing (1 June 2022); Paperback : 510 pages, Paperback ISBN: 9780323898683; eBook ISBN: 9780323886291
14. **Kesharwani P (Editor).** Nanomaterials for Photodynamic Therapy (Woodhead Publishing Series in Biomaterials) Paperback – Import, 1 November 2022, Publisher: Woodhead Publishing (1 November 2022), Paperback: 485 pages, Paperback ISBN: 9780323855952; eBook ISBN: 9780323903547.
15. **Kesharwani P (Editor).** Emerging Applications of Carbon Nanotubes in Drug and Gene Delivery (Woodhead Publishing Series in Biomaterials), 1 October 2022, Publisher: Mosby (1 October 2022); Paperback : 500 pages, ISBN: 978-0-323-85199-2.
16. **Kesharwani P (Editor), Umesh Gupta (Editor).** Nanomedicine-Based Approaches for the Treatment of Dementia. Paperback – Import, 1 October 2022, Publisher: Academic Press Inc (1 October 2022), Paperback: 350 pages, ISBN-10: 0128243317, ISBN-13: 978-0128243312
17. "Effect of generation G on cancer targeting propensity of PPI dendrimer" published in LAP LAMBERT Academic Publishing House, 2015; ISBN: 978-3-8443-9285-2
18. "Relative study of cancer targeting potential of engineered dendrimer" published in LAP LAMBERT Academic Publishing House, 2015; ISBN: 978-3-659-51741-9
19. **Kesharwani P (Editor), Sunil Kumar Dubey (Editor).** Nanocosmetics: Delivery Approaches, Applications and Regulatory Aspects. Publisher: CRC Press, 2023, ISBN: 1000931447, 9781000931440, Length 422 pages.

**Any other Information:**

***In brief, I would like to apprise that at the young age of 38, I have received many international and national prestigious awards such as "USERN Laureates - 2023" in Biological Sciences [among more than 90,000 applications from all over the world and applications have been carefully reviewed by more than 70 top 1% well-known scientists], "Best poster award at Wayne State University USA – 2016", and most Prestigious "Ramanujan Fellowship (SERB-DST)". I have also been listed in the "WORLD'S TOP 2% SCIENTISTS" list in year 2020, 2021 and 2022 in the field of "Pharmacology & Pharmacy" published by Stanford University, USA.***

***I have also received 6 research grants from various funding bodies [four from ICMR, one from SERB-DST and one from UGC]. I am the only candidate who has joined Jamia Hamdard, New Delhi with 5 advanced salary increments based upon my academic and research achievements.***

***From best of my knowledge, I am the first candidate from pharmaceutical background, who has been awarded the most Prestigious "Ramanujan Fellowship".***

***I have published more than 300 articles in well reputed high impact factor journals. My cumulative impact factor (IF) is 2331.217, total citations are 16029, h-index-66 & i-10 index is 252. I have 10 international publications published in very high impact factor journals (1 in "Progress in Material Sciences" IF 48.580, 2 in "Molecular Cancer" IF 41.444, 2 in "Progress in Polymer Sciences" IF 31.281, 2 in "Material Todays" IF 32.072, 2 in "Drug Resistance Updates" IF 22.841 and 1 in "Seminars in Cancer Biology" IF 17.012).***

***In summary, my research is at the cutting edge of nanomedicine, in developing and exploring the utility of use-inspired polymeric biomaterials and nanomaterials with the potential to revolutionize the field of drug discovery based on nanotechnology.***