

Curriculum Vitae

Rana P. Singh, Ph.D.

Professor of Cancer Biology
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Education

<u>Degree</u>	<u>Institution</u>	<u>Field of Study</u>
Ph.D.	Jawaharlal Nehru University, New Delhi, India	Life Sciences/Cancer Biology
M.Sc.	Jawaharlal Nehru University, New Delhi, India	Life Sciences
B.Sc.	Ewing Christian College, University of Allahabad, U.P., India	Zoology, Botany, Chemistry

PhD Thesis: Ethnomedicinal Survey of Madhya Pradesh and Pharmacological Studies of Certain Selected Plants on Murine Model System (2000)

Academic Career

- 2014 (Feb-June): **Visiting Scientist**, University of California Riverside, CA, USA.
- 2012-present: **Professor** of Cancer Biology, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.
- 2012-2016: **Professor-Adjunct**, School of Life Sciences, Central University of Gujarat, Gandhinagar, Gujarat, India.
- 2010-2012: **Professor**, School of Life Sciences, Central University of Gujarat, Gandhinagar, Gujarat, India. (Dept)
- 2006-2010: **Associate Professor**, Molecular Cancer Biology, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.
- 2003-2006: **Assistant Professor - Research**, Department of Pharmaceutical Sciences, School of Pharmacy, University of Colorado Denver, CO, USA.
- 2001-2003: **Research Associate**, Department of Pharmaceutical Sciences, School of Pharmacy, University of Colorado and Health Sciences Center, Denver, CO, USA.
- 2000-2001: **Post-doctoral Research Fellow**, Center for Cancer Causation and Prevention, AMC Cancer Research Center, Lakewood, CO, USA.

- Visited Canada, USA, China, Turkey, Poland, Singapore, South Africa and Austria for academic pursuits.

Research Publications (2000 – 2021)

Total: **164** (Articles: **145**; Book chapters: **13**; Proceedings: **5**; Book: **1**)

Selected Publications in > 5.0 Impact Factor Journals

Sl. No.	Journals (>5.0 impact factor <u>only</u>)	Number of articles published	Impact factor (5-yr/ when published)	Citations Google Scholar (June 2021)
1.	Carcinogenesis	14	5.7	Citation indices All Citations: >11,000 h-index: 69
2.	Clinical Cancer Research	11	7.8	
3.	Cancer Research	10	9.3	
4.	Oncogene	4	8.6	
5.	Molecular Cancer Therapeutics	6	5.6	
6.	Neoplasia	3	5.9	
7.	Current Cancer Drug Targets	3	5.1	
8.	Cell Cycle	2	5.4	
9.	International Journal of Cancer	3	7.3	
10.	Oncotarget	3	6.6	
11.	Cancer Prevention Research	3	5.2	
12.	Cell Cycle	1	5.3	
13.	Journal of Biological Chemistry	1	5.1	
14.	Cancer Letters	1	5.02	
15.	European Journal of Cancer	1	5.5	
16.	Mutation Research Rev	1	7.9	
17.	Antioxidant Redox Signaling	1	8.4	
18.	Journal of National Cancer Institute	1	14.5	
19.	Altex	1	5.2	
20.	British Journal of Cancer	1	5.5	

Total	71		
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Administrative Positions/Activities

- **Chairperson**, Special Centre for Systems Medicine, JNU, New Delhi. (2021-present)
- **Rector**, Jawaharlal Nehru University, New Delhi. (May 2017-present)
- **President**, Institutional Innovation Council-JNU, New Delhi. (2019 - present)
- **Dean of Students**, Jawaharlal Nehru University, New Delhi. (April 2016- May 2017)
- **Court Member**, Jawaharlal Nehru University, New Delhi. (2016-present)
- **Executive Council Member**, Jawaharlal Nehru University, New Delhi. (2016-2017)
- **Dean of Students' Welfare**, Central University of Gujarat, Gandhinagar, Gujarat, India. (2011-2012)
- **Chairman, Admission Committee**, Central University of Gujarat, Gandhinagar, India. (2011) – conducted All India Entrance Examination for CUG
- **Dean, School of Life Sciences**, Central University of Gujarat, Gandhinagar, Gujarat, India. (2010-2012)
- **Dean, School of Environmental Sciences**, Central University of Gujarat, Gandhinagar, Gujarat, India. (2011)
- **Provost**, Central University of Gujarat (CUG), Gandhinagar, Gujarat, India. (2010-2011)
- **Warden**, (Senior/Mess/Health/Recreation), Sabarmati Hostel, JNU, New Delhi. (2007-2010)

Other Professional Activities

- **Academic Committee Member**, CIMAP, Lucknow, India. (2019-21)
- **Academic Committee Member**, NII, New Delhi, India. (2019-2021)
- **Board Member SERB**, Department of Science and Technology, Govt. of India (2018-21)
- **Academic Committee Member**, ICGEB, New Delhi, India. (2019-21)
- **LEAP** Program participant at JNU, New Delhi and NUS at Singapore (Feb 2019)
- **Chairman of Program Review Committee**, Programs and Schemes of National Council for Science and Technology Communications, DST, Govt. of India. (2018)
- **Council's Nominee** for Committee in Biological/Life Sciences, IISER Kolkata, India. (2018-)
- **Academic Committee Member**, Translational Health Science and Technology Institute (THSTI), Faridabad, Haryana, India. (2017-2019)
- **Council's Nominee** for Committee in Biological/Life Sciences, IISER Bhopal, India. (2017-)
- **Academic Committee Member**, Raman Research Institute, Bangalore, India. (2017-2019)
- **Chairman, Selection Committee**, National Overseas Scholarship, Ministry of Tribal Affairs, Govt. of India (2017)

- **Member-Expert**, Faculty Selection Committee, J&K Public Service Commission, Jammu, India (2017)
- **Academic Committee Member, Army Cadet College**, IMA, Dehradun, UK, India. (2016)
- **Academic Committee Member, CSIR– CDRI**, Lucknow, UP, India. (2016-2018)
- **Member-Expert, Selection Committee, Chinese Government Scholarship**, MHRD, New Delhi (2016)
- **School Board Member**, Manglayatan University, UP. (2016-2017)
- **Member, Joint-Coordination Committee**, National Institute of Animal Welfare, Faridabad, Haryana. (2016-17)
- **School Board Member**, Central University of Punjab, Bhatinda (2016-18)
- **Advisory Committee Member**, UGC-HRD Centre, DDU Gorakhpur University, UP, India (2015-2017)
- **Member**, Indo-Overseas Fellowship Committee, DST, India. (2015)
- **Academic Council Member**, JNU, New Delhi. (2015-)
- **School Board Member**, Dept. of Biotechnology, DDU Gorakhpur University, UP, India. (2014-2017)
- **Scientific Advisory Committee Member**, Institute of Cytology and Preventive Oncology, ICMR Institute, Noida, UP, India. (2013-)
- **Faculty-in Charge**, Central Laboratory Animal Resources, Jawaharlal Nehru University, New Delhi, India. (2012-)
- **Academic Council Member**, Chhatrapati Shahu Ji Maharaj University, Kanpur, UP, India (2012-2015)
- **Moderation Committee Member**, Gujarat State Eligibility Test, Gujarat, India. (2011, 2012)
- **Chair, Search Committees**, Project Research Assistant/Post-doctoral Fellows /Project Research Associate – Bio-fractionation, isolation, purification and characterization of active components having anticancer activity in natural extracts, and Cancer Intervention Research at DOPS/SOP/University of Colorado. (September 2005, and March 2006)
- **Invited Judge** for 17th and 18th Annual Student Research Forum, University Colorado Health Sciences Center, Denver, CO, USA. (2002 and 2003)
- **Invited Judge** for Denver Metropolitan Regional Science Fair, Denver, CO, USA. (2003)

Workshops Organized

- **Organized**, Workshop on *Handling and Care of Laboratory Animals* at School of Life Sciences, Jawaharlal Nehru University, New Delhi, India. (15-19 February, **2020**).
- **Organized**, Workshop on *Handling and Care of Laboratory Animals* at School of Life Sciences, Jawaharlal Nehru University, New Delhi, India. (04-07 February, **2019**).
- **Organized**, Hands on Workshop on *Handling and Care of Laboratory Animals* at School of Life Sciences, Jawaharlal Nehru University, New Delhi, India. (28 May- 02 June **2018**)
- **Organized**, Hands on Workshop on *Handling and Care of Laboratory Animals* at Jawaharlal Nehru University, New Delhi, India. (11-14 February **2016**)
- **Conducted** one-day workshop on “Cancer Biology and Basics of Genetic Engineering” at Gujarat Science City, Ahmedabad, India at the meeting of German Foundation "DWIH New Delhi - Excellence on Tour-2013". (15-22 November **2013**)

Organization of International Conferences/Symposium

1. **Organized**, 14th International Symposium on Cancer Prevention and Therapeutics, Jawaharlal Nehru University, New Delhi, India. (March 16-17, **2021**).
2. **Organized**, International Symposium on Cancer Prevention and Treatment, Jawaharlal Nehru University, New Delhi, India. (February 20-21, **2020**).
3. **Organized**, International Symposium on Tumor Microenvironment and Cancer Prevention & Therapeutic, Jawaharlal Nehru University, New Delhi, India. (February 08-09, **2019**).
4. **Co-organizer**, International Conference on Cell Death in Cancer and Toxicology. IITR, Lucknow, India. (February 20-22, **2018**)
5. **Organized**, International Symposium on Cell Death Resistance in Cancer: Perspective on Cancer Stem Cells at Jawaharlal Nehru University, New Delhi, India. (19 February **2018**)
6. **Organized**, International Symposium on Cancer Prevention and Treatment at Jawaharlal Nehru University, New Delhi, India. (09-10 February **2018**)
7. **Organized**, 6th Annual Conference of Society for Mitochondrial Research and Medicine-India & International Conference on *Role of Mitochondria in Health & Disease* at Jawaharlal Nehru University, New Delhi, India. (10-11 February **2017**)
8. **Organized**, 8th International Conference of LASA India, Jawaharlal Nehru University, CSIR- Institute of Genomics and Intergrative Biology (IGIB), New Delhi and National Institute of Biologicals (NIB), Noida, India. (26-26 November, **2017**).
9. **Organized**, International Symposium on *Role of Herbals in Cancer Prevention and Treatment* at Jawaharlal Nehru University, New Delhi, India. (9-10 February **2016**)
10. **Organized**, International Symposium on *Current Advances in Radiobiology, Stem Cells and Cancer Research* at Jawaharlal Nehru University, New Delhi, India. (19-21 February **2015**)

11. **Co-organizer**, 5th International Conference on *Stem Cells and Cancer: Proliferation, Differentiation & Apoptosis* at Jawaharlal Nehru University, New Delhi, India. (8-11 November **2014**).
12. **Organized**, International Conference on *Recent Advances in Cancer Prevention and Therapeutics* at Central University of Gujarat, Gandhinagar, India. (19-20 November **2013**)
13. **Organized**, International Conference and Second Annual Meeting of Society of Mitochondria Research and Medicine-India on "Mitochondria in Health and Disease" at Central University of Gujarat, Gandhinagar, India. (2-3 November **2012**)
14. **Organized**, International Conference on *Recent Advances in Cancer Research: Therapeutics to Chemoprevention* at Central University of Gujarat, Gandhinagar, India. (8-9 February **2012**)
15. **Organized**, International Conference on *Recent Advances in Cancer Research: Bench to Bedside* at Central University of Gujarat, Gandhinagar, India. (19-20 February **2011**)
16. **Joint Organizer**, International *Cancer Research Symposium-2010 on Defining and Translating Science behind the Disease* at Rajiv Gandhi Centre for Biotechnology, Trivandrum, Kerala, India. (20-22 December **2010**)
17. **Organized**, International Symposium on *Cancer Chemoprevention and Translational Research* at Jawaharlal Nehru University, New Delhi, India. (21 December **2009**)
18. **Joint Coordinator**, International Conference on *Frontiers in Diagnosis, Prevention and Therapy of Cancer*, Motilal Nehru Medical College, Allahabad, U.P., India. (21-22 November **2009**)
19. **Organized**, International Symposium on *Novel Strategies for Targeted Prevention and Treatment of Cancer* at Jawaharlal Nehru University, New Delhi, India. (19-20 December **2008**)

Awards/Honors

- Indo-US Science Technology Forum (IUSSTF)- 2019 Award for establishing "Centre for Integrative Cancer Biology and Therapeutics" (Virtual Networked Centre - JNU and Stanford University)
- ICMR International Fellowship for Young Biomedical Scientists-2013-14. (University of California Riverside, USA)
- Post-doctoral Trainee Award for Prostate Cancer Research, U.S. Army Medical Research and Materiel Command, Department of Defense, USA. (2003-05)
- Scholar-in-Training Award, American Association for Cancer Research, Philadelphia, PA, USA. (2002)
- JRF and SRF, University Grant Commission/School of Life Sciences, JNU, New Delhi, India. (1993-95-98)
- National Eligibility Test for Junior Research Fellowship and Lecturership, UGC/CSIR, New Delhi, India. (1993)

- All India JNU Entrance examination for M.Phil/Ph.D. admission in Life Sciences, JNU, New Delhi, India. (First Rank, 1993).
- Merit-cum-Means Scholarship for Masters, School of Life Sciences, JNU, New Delhi, India. (1991-93)

Invited Talks/ Chairing of Scientific Sessions

1. Invited talk on ‘Small molecule enhances radiotherapeutic efficacy in prostate cancer’ at Advances in Cancer Research – Global Cancer Summit-2020, organized by Arjyopa Healthcare, India. (December 19, 2020)
2. Invited talk on ‘Mitochondrial exchange induces chemotherapy resistance in head and neck cancer and suppressed by a flavonoid’ at Conference on “Advances in Mitochondrial Medicine and Translational Research” organized by Manipal Academy of Higher Education, and Society for Mitochondria Research and Medicine-India, India. (November 6-7, 2020)
3. Invited talk on ‘Health and Cancer’ at Pt. LMS Government PG College Rishikesh, Uttarakhand, India. (August 04, 2020)
4. Invited distinguished lecture on ‘India’s aspirations in Post-Covid-Era’ at Yugdrashta Lecture Series, Organised by Bhavya Bharat Foundation, Gujarat, India. (May 27, 2020)
5. Invited plenary lecture on 'Management of Cancer through Chemoprevention' at the XLIII Indian Social Science Congress at Bengaluru Central University, Bengaluru, India. (January 17-21, 2020)
6. Invited talk at National Seminar on “Ayurveda and Integrative Medicine and its Contemporary Relevance” at Regional Ayurveda Research Institute of Urinary Disorder, Jammu, India. (January 11-12, 2020)
7. Invited talk at an International Conference on “Emerging Horizons in Oncology: Molecules to Therapeutics” at Gujarat University, Ahmedabad, India. (September 27-29, 2019).
8. Invited talk at Sci-ROI (Science and Research Opportunities in India) at University of Chicago, IL, USA. (September 7, 2019).
9. Delivered talk at ACS National Meeting, Fall 2019 (American Chemical Society) at San Diego, CA, USA. (August 29, 2019).
10. Delivered invited lecture on “small molecules suppressing chemo- and radiation resistance via targeting mitochondrial exchange and DNA repair in cancer” at School of Medicine, Radiation Oncology, Stanford University, CA, USA. (August 27, 2019)
11. Invited talk at International Conference of Integrative Chemistry, Biology and Translational Medicine. University of Delhi, Delhi, India. (February 25-26, 2019).
12. Invited talk at Mitochondria in Health and Disease, CDRI, Lucknow, India. (November 29-30, 2018).
13. Invited talk at International 87th Conference of Society of Biological Chemists, School of Life Sciences, Manipal Academy of Higher Education, Manipal, India. (November 25-27, 2018).

14. Invited talk, Animal Models in Cancer Research, at Institute of Liver and Biliary Sciences, New Delhi, India. (October 2018)
15. Invited talk at 7th International Symposium on Global Challenges for today's Research Universities: Health, Energy and Environment, and Agriculture, McDonnell International Scholars Academy, Beijing, **China**. (October 11-14, 2018).
16. International Conference on Bioinformatics, JNU, New Delhi, India. (September 26-28, 2018).
17. National Conference on Recent Advances in Environmental Sciences, School of Environmental Sciences, JNU, New Delhi, India. (March 22, 2018).
18. Invited talk on Fisetin Causes DNA Damage and Apoptosis through ROS in Human Gastric Cancer Cells. International Conference on Cell Death in Cancer and Toxicology, CSIR-IITR, India. (February 20-22, 2018)
19. Invited talk on Chemoprevention of Colon Cancer: Role of Mitochondrial Dynamics. Second International Conference on Nutraceuticals and Chronic Diseases (2nd INCD-2017), Goa, India (September 1-3, 2017)
20. 15th Annual Meeting and a conference on "Basic and Applied Aspects of Health Management Using Radiation, Antioxidants and Nutraceuticals" at BARC, Mumbai, India. (January 9-12, 2017)
21. Invited talk on 'Animal models in prostate cancer research' at International Conference on "Advances in Laboratory Animal Science for Modeling Human Diseases" organized by Laboratory Animal Scientists' Association (LASA), Bangalore, India. (October 14-15, 2016)
22. Invited talk on 'Enhancing radiotherapy of prostate cancer with phytochemicals' at National Symposium on Current Research in Cancer Biology & Therapy organized by School of Biological Science & Biotechnology, University & Institute of Advanced Research, Gandhinagar, India. (October 7-8, 2016)
23. Invited talk on 'Where to focus while writing a scientific paper?' at Workshop on Scientific Paper Writing and Effective Communications, DDU, Gorakhpur University, UP, India. (September 17-18, 2016)
24. Invited talk at Symposium on Recent Trends in Biological Sciences, Central University of Punjab, Bhatinda, Punjab, India. (March 29, 2016)
25. Indo-US Workshop on Cancer at NASI, Pusa, New Delhi, India, organized by CCRU, AYUSH, Govt of India. (March 3-4, 2016)
26. Invited talk and chair of a scientific session. National Conference on Herbal Medicine, Current Strategies & Future prospects, University of Rajasthan, Jaipur, India (December 22-24, 2015)
27. Invited talk and chair of a scientific session. Sixth International Conference on Stem Cells and Cancer: Proliferation, Differentiation & Apoptosis". Pune, India. (October 2015)

28. International Conference on Cancer Prevention. Invited talk. University of Gdnask, **Poland**. (June 2015)
29. Academic Staff College, Invited talk for orientation program. DDU Gorakhpur, UP, India. (June 2015)
30. Keynote Talk, at National Seminar on Medicinal Plants: Markets to Produce, at INSA New Delhi, India. Title: "Role of phytochemicals in chemoprevention of cancer". (April 29, 2015)
31. Keynote Talk, at KIIT Group of College, Gurgaon, Haryana, India, on National Science Day. Title: "How to control cancer?" (February 28, 2015)
32. Fourth Annual Conference of the Society for Mitochondrial Research and Medicine (SMRM) at the School of Life Sciences, Manipal University, Manipal, Karnataka, India. (December 8-9, 2014)
33. International Conference on Emerging Trends in Biotechnology and 11th Convention of the Biotech Research Society, India, Jawaharlal Nehru University, New Delhi, India. Title: "Cyclin-dependent kinase inhibitor in chemoprevention of prostate cancer". (November 6-9, 2014)
34. Chaired a Scientific Session in 5th International Conference on Stem Cells and Cancer: Proliferation, Differentiation & Apoptosis, Jawaharlal Nehru University, New Delhi, India. (November 8-11, 2014).
35. Department of Pharmaceutical Sciences, University of Colorado Denver, CO, **USA**. Title: "A novel role of silibinin in enhancing radiotherapeutic response in prostate cancer" (May 12, 2014).
36. University of California Riverside, Department of Chemistry, CA, **USA**. Title: "Chemoprevention of photocarcinogenesis by small molecules from plants". (March 12, 2014).
37. International Conference on 'Vistas of Life Sciences- Now and Beyond' at Jawaharlal Nehru University, New Delhi, India. Title: "Angioprevention of cancer". (February 13-15, 2014).
38. South Asian University, New Delhi, India. Title: "Starvation of tumor - chemopreventive intervention of angiogenic switch to control cancer". (Jan 24, 2014)
39. Fourth International Conference on Stem "Cells and Cancer: Proliferation, Differentiation & Apoptosis" at Haffkine Institute, Parel, Mumbai, India. Chaired a scientific session on 'Molecular regulation in cancer therapeutics'. Title: Chemopreventive agents target tumor angiogenesis. (October 19-22, 2013)
40. DBT-Brain Storming Session on Nutriepigenomics at CFTRI Mysore, India. Title: "Modulation of tumor suppressors by IP6 in prostate cancer". (June 7, 2013)
41. A National Seminar on "Role of Ayurveda in Rheumatoid Arthritis & Cancer" Organized by GR Ayurved University, Hoshiarpur, Punjab, India. Title: "Cancer chemoprevention by phytochemicals". (April 20-21, 2013)
42. A Conference on "Emerging Trends and Challenges in Basic and Translational Research in Biochemistry" by Centre of Advanced Study in Zoology, Banaras Hindu University, Varanasi, India. Title: "Vascular targeting of cancer growth by phytochemicals". (February 4-5, 2013)

43. A Conference on "Applications of Natural Products for Human Health and Bioremediation of Pollutants" organized by Centre for Advanced Studies, Department of Zoology, University of Rajasthan, Jaipur, India. Title: "Role of naturally occurring compounds in angioprevention of cancer". (March 22-23, 2013)
44. Thirty second Convention of Indian Association for Cancer Research on "Emerging Trends in Cancer research: Road to prevention & cure & International Symposium on: Infection and Cancer" Title: "Tumor Angiogenesis – a potential target in chemoprevention of cancer". (February 13-16, 2013).
45. International Congress on Ayurvedic Concepts and Treatment of Malignant Disorders at Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Udupi, Karnataka. Topic: Role of Phytochemicals in Chemoprevention of Cancer. (December 15-16, 2012)
46. XXXII Annual Conference of Society of Toxicology (India): New Paradigms in Toxicology (NPT-2012) at CSIR-Indian Institute of Toxicology Research, Lucknow, UP, India. Title: "Phytochemicals in angioprevention of cancer" (December 5-7, 2012).
47. Third International Conference on Stem Cells and Cancer (ICSCC-2012): Proliferation, Differentiation and Apoptosis at Ram Manohar Lohia Hospital, New Delhi, India. Topic: "Apoptotic mechanisms of silibinin in neoplastic cells". (October 27-30, 2012).
48. Fifth International Congress on Nutrition and Cancer at Elazig, **Turkey**. Topic: Decursin, a novel coumarin with anticancer activity in prostate cancer (September 09 - 11, 2012)
49. Indo-US collaborative Workshop focused on "Accelerating Botanicals Agent Development Research for Cancer Chemoprevention & Treatment", at Moffitt Cancer Center in Tampa, Florida, **USA**. Topic: "Multiple targets of phytochemicals in cancer chemoprevention – cell cycle, apoptosis and angiogenesis". (May 29-31, 2012).
50. International Conference on Mitochondria Research and Medicine and First Annual Meeting of the Society for Mitochondria Research and Medicine (SMRM-India), at Centre for Cellular and Biology (CCMB), Hyderabad, India. Topic: "Apoptotic mechanisms of silibinin in neoplastic cells". (December 9-10, 2011)
51. Inter-University Accelerator Centre, New Delhi. Ultraviolet radiation-induced molecular alterations and apoptotic signaling. (November 21-22, 2011)
52. International Conference on Natural Products and Cancer Targets: Progress and Promise, Zhengzhou University, Zhengzhou Province, **China**. Topic: "Decursin, a naturally occurring coumarin, suppresses various aspects of prostate cancer growth". (August 24-25, 2011)
53. International meeting and round table discussion involving American and Chinese Scientists on Translational Research for Cancer Control, at Institute of Medicinal Biotechnology, Chinese Academy of Medical Science, and Pekin Union Medical College, Beijing, **China**. Topic: "Translational research with phytochemicals for cancer control". (August 26-28, 2011)
54. International Conference on Carcinogenesis and Cancer Prevention organized by Carcinogenesis Foundation, USA, at DSI, Bangalore. Title: "Cancer chemopreventive activity of a naturally occurring novel coumarin compound". (February 16-18, 2011)

55. Three lectures on various principles and techniques on topics related to radiation, Central University of Bihar, Patna. (December, 2010)
56. International Cancer Research Symposium-2010 on Defining and Translating Science Behind the Disease at Rajiv Gandhi Centre for Biotechnology, Trivandrum, Kerala, India. Title: "A coumarin compound inhibits prostate cancer cells growth via modulation of cell cycle progression". (December 20-22, 2010)
57. Word Congress on Cancer-2010, Kottayam, Kerala, India. Title: "Targeting cell cycle regulation in prostate cancer." (September 3-5, 2010)
58. University of Pittsburgh Cancer Institute, Pittsburgh, PA, USA. Title: "Cyclin-dependent kinase inhibitors: role in chemoprevention of prostate cancer". (July 2, 2010)
59. Symposium on Natural Products in Health and Disease: Biochemical and Molecular Mechanisms. Punjab University Chandigarh, Punjab, India. Title: "Mechanisms of cancer chemoprevention by IP6". (March 5-6, 2010)
60. International Symposium on Current Status and Opportunities in Aromatic and Medicinal Plants. Central Institute for Medicinal and Aromatic Plants, Lucknow, UP, India. Title: "Role of phytochemicals in cancer control". (February 21-24, 2010)
61. International Symposium on Endocrinology and Reproduction: Molecular Mechanisms to Molecular Medicine and 28th Meeting of the Society for Reproductive Biology and Comparative Endocrinology. SCMM, JNU, New Delhi. Title: "Prostate tumor growth and progression and its chemoprevention". (February 4-6, 2010)
62. UGC Academic Staff College, Jawaharlal Nehru University, New Delhi, India. Title: "Chemoprevention of cancer". (January, 2010)
63. International Conference on Frontiers in Diagnosis, Prevention and Therapy of Cancer, Motilal Nehru Medical College, Allahabad, U.P., India. Title: Cell cycle regulation and carcinogenesis. (November 21, 2009)
64. Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, Kerala, India. Title: "Targeting angiogenesis by small molecules for cancer control". (October 30, 2009)
65. 13th ISCB International Conference on Interplay of Chemical and Biological Sciences: Impact on health and environment. University of Delhi, India. Title: Chemoprevention of prostate tumor growth and progression. (March 1, 2009)
66. Two lectures at UGC Academic Staff College, Jawaharlal Nehru University, New Delhi, India. Title: 'Cancer Chemoprevention' and 'Angioprevention of cancer'. (January 20 & 28, 2009)
67. Word Congress on Cancer-2009, Kottayam, Kerala, India. Title: "Antiangiogenic intervention of cancer by phytochemicals." (January 13, 2009)
68. Roswell Park Cancer Institute, Buffalo, New York, USA. Title: "Targeting tumor angiogenesis by phytochemicals for cancer control." (January 11, 2008)
69. Indo-US Symposium on Tobacco-related Diseases under 5th World Assembly on Tobacco Counter Health (WATCH) Conference, New Delhi, India. Title: "Chemoprevention of lung cancer by targeting tumor angiogenesis." (December 4, 2007)
70. Biospark-2007, SLS, Jawaharlal Nehru University, New Delhi, India. Title: "Vascular targeting for cancer control." (March 23, 2007)

71. Academic Staff College, Jawaharlal Nehru University, New Delhi, India. Title: "Anticancer drug development from phytochemicals." (February 21, 2007)
72. 75th Annual meeting of Society of Biological Chemists (India) at Jawaharlal Nehru University, New Delhi, India. Title: "Mitogenic and survival signaling - potential targets for non-toxic anticancer agents". (December 11, 2006)
73. International Conference on 'Molecular and Physiological Effect of Bioactive Food Components' organized by University of Vienna and Medical University of Vienna, at Vienna, **Austria**. Title: "Angioprevention – an upcoming approach in cancer intervention by bioactive flavonoids". (October 13, 2006)
74. Health Products and Food Branch, Office of Continuing Education, Health Canada, Ottawa, **Canada**. Title: "Bioactive phytochemicals in prevention of cancer". (September 6, 2006)
75. School of Medicine, University of Colorado, Prostate Conference Series. Title: "Signal transduction pathways: potential targets in prostate cancer prevention". (March 6, 2006)
76. National Institute of Immunology, New Delhi, India. Title: "A plant flavonoid silibinin targets cell cycle regulation, mitogenic and survival signaling in prostate cancer". (September 7, 2005)
77. School of Life Sciences, Jawaharlal Nehru University, New Delhi, India. Title: "Mechanisms of skin cancer chemoprevention and therapy by silibinin". (September 6, 2005)
78. School of Life Sciences, Jawaharlal Nehru University, New Delhi, India. Title: "Targeting cell cycle regulation, mitogenic and survival signaling in prostate cancer chemoprevention" (February 3, 2004)
79. Presentation and discussion in 93rd Annual meeting of American Association for Cancer Research, Philadelphia, PA, **USA**. "Prostate cancer, silibinin and IGFBP-3". (April, 2002)

Membership

1. Life member, Indian Association for Cancer Research.
2. Active member, American Association for Cancer Research.
3. Life member, Society for Reproductive Biology and Comparative Endocrinology.
4. President, Cancer Research and Care Academy, New Delhi.

Teaching

1. Courses: (a) Molecular Cancer Biology and (b) Radiation Biology, and (c) Practical in Cancer Biology for M.Sc. at School of Life Sciences, Jawaharlal Nehru University (JNU), New Delhi, India (2006-)
2. Courses: (a) Topics in Radiation and Cancer Biology; and (b) Theoretical Foundation for Experiments, for M.Phil./Ph.D. at School of Life Sciences, JNU, New Delhi, India (2006-)
3. Three courses for M.Phil./Ph.D. at School of Life Sciences, CUG, Gandhinagar, Gujarat, India (2010-12)

4. One course: Methods in Molecular Toxicology, including Carcinogenesis for Ph.D. Students, at the Department of Pharmaceutical Sciences, University of Colorado Denver, USA (2003-2006)

Personnel Trained (Cancer research)

Over 50, from 2001-onwards, including Graduate Students, Research Scholars, Research Assistants, Research Associates, Post-doctoral Fellows and Visiting Scientists

M.Sc. Dissertation: many students

M.Phil. Degree awarded: 13

Ph.D. Degree awarded: 20

Post-Doctoral Fellows/RA: 5

Current Research Group (2020): 7 Ph.D. Students, 2 PDF/Research Associate, 1 SRF, 2 JRF, 1 Project Assistant, 2 M.Sc. Trainees

Editorial Board Member for Peer-reviewed Journals

1. Journal of Cancer Prevention (2021-)
2. Scientific Reports (2018-)
3. Frontiers in Cellular Biochemistry - Review Editor (2013-)
4. BMC-Cancer – Associate Editor (2013-20)
5. PLoS One - Academic Editor (2011-18)
6. Molecular Cancer Biology (2012-14)
7. BMC Complementary and Alternative Medicine - Associate Editor - Basic Research (2011-14)
8. International Journal of BioSciences and Technology (2008-12)
9. International Journal of Medical Sciences and Technology (2008-12)
10. International Journal of Life Sciences and Technology (2008-11)
11. Oriental Pharmacy and Experimental Medicine – Guest Editor for one article (2008)
12. Journal of Cancer Research and Therapeutics (2006-08)

Guest Editor for Special Issues

1. Mitochondrion (2019) – *Mitochondria in Health and Disease* (**Impact Factor = 3.7**)
2. Mitochondrion (May, 2014) – *Role of Mitochondria in Health and Disease* (**Impact Factor = 4.1**, 2013)
3. Nutrition and Cancer (May, 2013) – *Mechanisms of Bioactive Phytochemicals in Cancer Chemoprevention* (**Impact Factor = 2.8**)
4. Indian Journal of Experimental Biology (Nov. 2011) - *Emerging Trends in Cancer: Prevention and Therapeutics* (**Impact Factor = 1.3**)

Reviewer for Edited Book

Molecular Techniques in Biochemistry and Biotechnology, McGraw-Hill, 2008

Reviewer for Peer-reviewed Journals

(1) Cancer Research, (2) Clinical Cancer Research, (3) Oncogene, (4) Molecular Carcinogenesis, (5) International Journal of Cancer, (6) Cancer Letters, (7) Nutrition and Cancer, (8) Indian Journal of Cancer, (9) International Journal of Gynecological Cancer, (10) Journal of Cell Physiology, (11) Archives of Biochemistry and Biophysics, (12) Drugs, (13) Evidenced-based Complementary and Alternative Medicine, (14) IUBMB Life, (15) Journal of Food Biochemistry, (16) Kidney International, (17) Toxicology Letters, (18) Food and Chemical Toxicology, (19) International Journal of Integrative Biology, (20) Cancer Immunology and Immunotherapy, (21) Journal of Neurosurgery, (22) Journal of Medicinal Food, (23) PLOS One, (24) BMC Cancer Biology, (25) International Journal of Radiation Biology, (26) Tumor Biology, (27) Molecular Cancer Therapeutics, (28) Cancer Discovery, (29) British Journal of Nutrition, (30) The Journal of Steroid Biochemistry and Molecular Biology; and few more.

Research Interests

Carcinogenesis, Cancer Chemoprevention, Tumor Angiogenesis, Radiation Therapy, Cell Signaling, Cell Cycle, Cancer Stem Cells

The areas of interest in carcinogenesis are cell cycle progression, mitogenic and cell survival signaling, and apoptosis, tumor angiogenesis, DNA damage/repair and organ specific carcinogenesis, including that of **lung**, prostate, oral cavity, stomach etc. Discovering and evaluating anticancer activities of small molecules and plant extracts and providing scientific basis (mechanisms) for their effectiveness in controlling carcinogenesis are priority areas of research. Of specific importance is the understanding of mechanisms at all levels *viz.*, molecular, cellular and organ levels in both *in vitro* as well as *in vivo* animal model systems by using latest techniques. The goal is to develop mechanism-based non-toxic anticancer agents for their potential use in cancer management.

Research Contributions (selected)

- Scientific contributions have been made in the area of cancer chemopreventive drug discovery. Studies have led to the discovery of many novel mechanisms of action of chemopreventive agents against various cancers as evident from publications and citations. More importantly, the extensive work paved the way for a chemopreventive drug silibinin to enter phase II clinical trial in human prostate cancer patients.
- We identified that insulin-like growth factor binding protein-3 can serve as prognostic biomarker in prostate cancer intervention by chemopreventive agents. Also identified that silibinin can protect skin from the DNA damage by UV radiation by enhancing the repair, and in process of developing a novel formulation for sunscreen.

- We identified that these agents interfere with the process of angiogenesis to inhibit tumor vascularization and its growth and progression. We postulated that dietary factors affect the equilibrium between antiangiogenic and proangiogenic environment in the body and thus determine the dormancy of a tumor waiting for angiogenesis for its growth.
- We identified that silibinin, a flavonoid, can sensitize cancer cells for chemotherapy. IP6 (inositol hexaphosphate) works selectively against prostate cancer cells by specifically targeting cyclin-dependent kinase inhibitors p21 and p27 and thereby modify the activity of CDK-cyclin and RB-related protein and E2F complexes. Also, found that IP6 impairs erbB1 receptor and fluid-phase endocytosis and associated mitogenic signaling in human prostate cancer cells.
- Recently, we identified that sodium butyrate, a short-chain fatty acid and fermentation product, induces DRP1 (dynamin-related protein) mediated mitochondrial fusion and starve the cancer cells to death.
- We found that a flavonoid can selectively radiosensitize the cancer cells by blocking the nuclear translocation of EGFR and DNA-PK in both cell culture and *in vivo* tumor growth conditions. Thus, it could be a potential radiosensitizer in radiotherapy of cancer.

Patents

1. **Singh RP**, Nambiar D, Agarwal R. A novel and selective radiosensitizing agent for providing mechanism-based radiosensitizing effects in prostate cancer. Provisional, no. 2889/Del/2015.
2. Kaschula, CH, **Singh RP**, Sabarwal A, Dheeraj A. 4'-substituted analogues of fisetin and their use in the treatment of cancer. 202021052123/IN/Nov2020.

Publications

Total: 164 (Research articles: **145**; Book chapters: **13**; Proceedings: **5**; Book: **1**)

Book

1. *Breast Cancer – Biology, Prevention and Treatment*. A.R. Rao and **Rana P. Singh**. Red Flower Publication, New Delhi, **2015**.

Research Articles:

1. Kumar M, Jaiswal RK, Yadava PK, **Singh RP**. An assessment of PARP-1 role in normal and cancer cells. *BioFactors*. Nov;46(6):894-905, **2020**. Oct 24, 2020. doi:10.1002/biof.1688.
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3. Kumar M, Jaiswal RK, Prasad R, Yadav SS, Kumar A, Yadava PK, **Singh RP**. PARP-1 induces EMT in non-small cell lung carcinoma cells via modulating the transcription factors Smad4, p65 and ZEB1. *Life Sciences*. Mar 15;269:118994, **2021**. doi: 10.1016/j.lfs.2020.118994. Epub 2021 Jan 5.
4. Tailor D, Going CC, Resendez A, Kumar V, Nambiar DK, Li Y, Dheeraj A, LaGory EL, Ghoochani A, Birk AM, Stoyanova T, Ye J, Giaccia AJ, Le QT, **Singh RP**, Sledge GW, Pitteri SJ, Malhotra SV. Novel Aza-podophyllotoxin derivative induces oxidative phosphorylation and cell death via AMPK activation in triple-negative breast cancer. *British Journal of Cancer*. Feb;124(3):604-615, **2021**. Nov 3, 2020. doi:10.1038/s41416-020-01137-4.
5. Chandraker SK, Lal M, Dhruve P, **Singh RP**, Shukla R. Cytotoxic, antimetabolic, DNA binding, photocatalytic, H₂O₂ sensing, and antioxidant properties of biofabricated silver nanoparticles using leaf extract of *Bryophyllum pinnatum* (Lam.) Oken. *Frontiers in Molecular Biosciences*. Jan 28;7:593040, **2021**. doi: 10.3389/fmolb.2020.593040.
6. Singh SP, Mishra A, Shyanti RK, **Singh RP**, Acharya A. Silver nanoparticles synthesized using *Carica papaya* leaf extract (AgNPs-PLE) causes cell cycle arrest and apoptosis in human prostate (DU145) cancer cells. *Biological Trace Element Research*. Apr;199(4):1316-1331, **2021**. June 2020; doi:10.1007/s12011-020-02255-z.
7. Singh V, Singh R, Kujur PK, **Singh RP**. Combination of resveratrol and quercetin causes cell growth inhibition, DNA damage, cell cycle arrest, and apoptosis in oral cancer cells. *Assay Drug Development Technology*. July;18(5):226-238, **2020**. doi:10.1089/adt.2020.972.
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9. Dhruve P, Nauman M, Kale RK, **Singh RP**. A novel hepatoprotective activity of *Alangium salviifolium* in mouse model. *Drug Chemical Toxicology*. Mar;6:1-13, **2020**. doi: 10.1080/01480545.2020.1733593.
10. Nauman M, Kale RK, Dhruve P, **Singh RP**. Determination of antioxidant potential of *Salix aegyptiaca* L. through biochemical analysis. *Indian Journal of Experimental Biology*. 58 (3):198-205, March **2020**.
11. Kumar K, Mishra JPN, **Singh RP**. Usnic acid induces apoptosis in human gastric cancer cells through ROS generation and DNA damage and causes up-regulation of DNA-PKcs and γ -H2A.X phosphorylation. *Chem Biol Interact*. Jan 5; 315, **2020**. doi: 10.1016/j.cbi.2019.108898.
12. Kumar K, Mishra JPN, **Singh RP**. Usnic acid inhibits cell proliferation via downregulation of proliferating cell nuclear antigen (PCNA) expression in gastric carcinoma AGS cells. *Bioscience Biotechnology Research Communications*. 12(3):609-613, Sept **2019**. DOI: 10.21786/bbrc/12.3/9.
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14. Kumar K, Mishra JPN, **Singh RP**. Anti-cancer efficacy and mechanisms of usnic acid. *Indian Journal of Pharmaceutical and Biological Research*. Jun 15, **2019** [cited 2 Sep. 2020]; 7(03):1-4.
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16. Tak J, Sabarwal A, Shyanti RK, **Singh RP**. Berberine enhances posttranslational protein stability of p21/cip1 in breast cancer cells via down-regulation of Akt. *Molecular and Cellular Biochemistry*. 458(1-2):49-59, **2019**.
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This article was selected for the ‘**Highlights**’ section of the journal issue.

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 29. Sivapar V. Mathan, Kim Su Hyeong, Eun-Ryeong Hahm, Shivendra V. Singh, **Rana P. Singh**. Diallyl trisulfide triggers mitochondrial dysfunction and ROS-mediated apoptosis, and reduces the number of cancer stem cells in vitro and in vivo in head and neck cancer. 6th Annual Conference of Society for Mitochondrial Research and Medicine. Jawaharlal Nehru University, New Delhi, India. (February 10-11, 2017)
 30. Abhijeet Mishra and **Rana P. Singh**. Biosynthesis of silver nanoparticles (AgNps) using silibinin and its anticancer activity against lung cancer cells. India International Science Festival (IISF), NPL, New Delhi. (December 7-11, 2016)
 31. Lalita Sharma and **Rana P. Singh**. Decursin: An epigenetic modulator for prostate cancer control. XL All Indian Cell Biology Conference & International Symposium on Functional Genomics and Epigenomics. Jiwaji University, Gwalior. (November 17-19, 2016). (Poster Presentation)
 32. Vijay Mohan, **Rana P. Singh**. A novel anticancer agent, evodiamine, induces growth inhibition and apoptosis in human lung carcinoma cells. 7th International Conference on Stem cells and Cancer: Proliferation, Differentiation and Apoptosis, Margao, Goa, India. (October 21-23, 2016). (Oral Presentation)
 33. Kandhari K, **Rana P. Singh**. Anti-cancer and anti-migratory efficacy of acacetin in breast cancer cells. 7th International Conference on Stem Cells and Cancer (ICSCC-2016): Proliferation, Differentiation and Apoptosis. Margao, Goa, India. (October 21-23, 2016).
 34. Ritis K. Shyanti, A. Sehrawat, J. P. N. Mishra, S.V. Singh and **Rana P. Singh**. Zerumbone regulates CD1d mediated antitumor activity by modulating antigen presentation pathway in breast cancer cells. National Symposium on Current Research in Cancer Biology & Therapy, University and Institute of Advanced Research (UIAR), School of Biological Sciences and Biotechnology, Department of Cell Biology, KOBA, Gandhinagar, Gujarat. (October 7-8, 2016). (Oral Presentation)

35. Kartha A and **Rana P. Singh**. AG induces S phase arrest and apoptosis via ROS generation and irreparable DNA damage in head and neck cancer cells. National Seminar on Advances in Life Sciences Research at School of Life Sciences, Central University of Gujarat, Gandhinagar, India. (March 1, 2016). (Oral Presentation)
36. Sivapar V. Mathan, Kim Su Hyeong, Eun-Ryeong Hahm, Shivendra V. Singh, **Rana P. Singh**. Anticancer effects of diallyl trisulfide (DATS) on head and neck cancer. International Symposium on Role of Herbals in Cancer Prevention and Treatment 2016, Jawaharlal Nehru University, New Delhi, India. (February 9-10, 2016). (Oral Presentation)
37. Saba Tabasum and **Rana P. Singh**. Fisetin inhibits TGF- β 1-induced epithelial-to-mesenchymal transition and suppresses lung cancer invasion and metastasis. International Symposium on Role of Herbals in Cancer Prevention and Treatment. Jawaharlal Nehru University, New Delhi, India. (February 9-10, 2016).
38. Tak J and **Rana P. Singh**. Berberine modulates key regulatory molecules to up-regulate P21 and P27 in breast cancer cells. International Symposium on Role of Herbals in Cancer Prevention and Treatment. School of Life Sciences, Jawaharlal Nehru University (JNU), New Delhi, India. (February 9-10, 2016).
39. Akash Sabarwal, Rajesh Agarwal, **Rana P. Singh**. Reactive oxygen species is the key mediator of death induced by fisetin in human gastric cancer cells. International Symposium on Role of Herbals in Cancer Prevention and Treatment. School of Life Sciences, Jawaharlal Nehru University, New Delhi, India. (February 9-10, 2016).
40. Punia R, Raina K, Agarwal R, **Rana P. Singh**. Combinatorial effect of Acacetin and Doxorubicin on lung cancer cells. International Symposium on Role of Herbals in Cancer Prevention and Treatment. School of Life Sciences, Jawaharlal Nehru University (JNU), New Delhi. (February 9-10, 2016).
41. Praveen K. Kujur, Virendra Singh, Rupali Raj Kesar, **Rana P. Singh**. Fisetin, a novel flavonoid, targets tumor angiogenesis for cancer prevention. International Symposium on Role of Herbals in Cancer Prevention and Treatment. New Delhi, India. (February 9-10, 2016).
42. Kartha A and **Rana P. Singh**. AG induces ROS generation and DNA damage leading to S-phase arrest and apoptosis selectively in head and neck cancer cells. International symposium on Role of Herbals in Cancer Prevention and Treatment at School of Life Sciences, Jawaharlal Nehru University (JNU), New Delhi, India. (February 9-10, 2016).
43. Tak J and **Rana P. Singh**. Study of berberine mediated up regulation of p21/cip1 and p27/kip1 in breast cancer cells. 6th International Translational Cancer Research Conference 2016 on Prevention and Treatment of Cancer: Hypes and Hopes. Gujarat Cancer Research Institute (GCRI) at Hyatt Regency Ahmedabad, Gujarat, India. (February 4-7, 2016).
44. Kartha A and **Rana P. Singh**. AG induces apoptosis and inhibits invasion and migration in FaDu head and neck cancer cells. 6th International Translational Cancer Research Conference at Gujarat Cancer and Research Institute, Ahmedabad, India. (February 4-7, 2016).

45. Tak J and **Rana P. Singh**. Berberine mediated up regulation of p21/cip1 and p27/kip1 in breast cancer cells. Seminar Transforming Biological Research on THE CELL 3MT (2016). Government Science College, Shri. K. K. Shastri Educational Campus, Ahmedabad, Gujarat, India. (January 1, 2016).
46. Surya P. Singh and **Rana P. Singh**. *Carica papaya* aqueous leaf extract induces cell cycle arrest and apoptosis in prostate cancer cells. Current Advances in Radiobiology, Stem Cells and Cancer Research. School of Life Sciences, Jawaharlal Nehru University (JNU), New Delhi. (February 19-21, 2015).
47. Gagan Deep, Isabel Schlaepfer, Dhanya K. Nambiar, Anand Ramteke, Rahul Kumar, Deepanshi Dhar, Chapla Agarwal, Bryan Bergman, Michael Graner, Paul Maroni, **Rana P. Singh**, Rajesh Agarwal. Hypoxia-induced lipid accumulation in prostate cancer cells controls extracellular vesicles biogenesis promoting growth and invasiveness. International Society for Extracellular Vesicles, Washington DC, USA. (April 23-26, 2015).
48. Dhanya K. Nambiar, Paul Rajamani, Anil K. Jain, Gagan Deep, Rajesh Agarwal, **Rana P. Singh**. Silibinin improves radiotherapeutic efficacy in prostate cancer by reducing IR-induced toxicity and EMT. Annual Meeting of AACR-2015, Philadelphia, USA. (April 18-22, 2015).
49. Arpit Dheeraj, Gagan Deep, Cynthia Tilley, Chapla Agarwal, **Rana P. Singh** and Rajesh Agarwal. Silibinin sensitizes hedgehog inhibitor resistant basal cell carcinoma cells towards growth inhibition via targeting EGFR signaling pathway. Annual Research Retreat, Skaggs School of Pharmacy and Pharmaceutical Sciences at Beaver Run Resort in Breckenridge, Colorado, USA. (August 5-7, 2015).
50. Arpit Dheeraj, Gagan Deep, Rajesh Agarwal and **Rana P. Singh**. Insulin-like growth factor binding protein-3 (IGFBP-3) promotes the migration and invasion of advanced prostate cancer cells under hypoxia. International Symposium on Role of Herbals in Cancer Prevention and Treatment at School of Life Sciences, Jawaharlal Nehru University, New Delhi, India. (February 9-10, 2016).
51. Praveen K. Kujur, Dongsool Yim, and **Rana P. Singh**. Decursin inhibits proliferation in human hepatoma cells via modulation of cell cycle and induction of apoptosis and autophagy. Biosparks-2015, Bench to biosphere. New Delhi, India. (March 27-28, 2015). (ORAL presentation)
52. Praveen K. Kujur, Virendra Singh, Rupali Raj Kesar, **Rana P. Singh**. Fisetin, a novel flavonoid, targets tumor angiogenesis for cancer prevention. Role of Herbals in Cancer Prevention and Treatment. New Delhi, India. (February 9-10, 2016).
53. Praveen K. Kujur, Dongsool Yim, and **Rana P. Singh**. Decursin, a coumarin compound, inhibits the growth of human hepatoma cells involving cell cycle arrest, apoptosis, and autophagy. AACR Annual meeting 2015, Pennsylvania, USA. (April 18-22, 2015).

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55. Reenu Punia, Komal Raina, Rajesh Agarwal, **Rana P. Singh**. Combinatorial effect of Acacetin and Doxorubicin on lung cancer cells. International Symposium on Role of Herbals in Cancer Prevention and Treatment. School of Life Sciences, Jawaharlal Nehru University, New Delhi. (Feb 9-10, 2016).
56. Kandhari K, Mishra JPN and **Rana P. Singh**. Inhibitory Effect of Acacetin on Proliferation, Viability and Migration in Breast Cancer Cells. Role of Herbals in Cancer Prevention and Treatment. School of Life Sciences, Jawaharlal Nehru University (JNU), New Delhi, India. (February 9-10, 2016).
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58. Ritis K. Shyanti, A. Sehrawat, JPN. Mishra, S.V. Singh and **Rana P. Singh**. Effect of Zerumbone on CD1d Expression and its Role in Breast Cancer Treatment, International Symposium on Role of Herbals in Cancer Prevention and Treatment, School of Life Sciences, Jawaharlal Nehru University, New Delhi. (9-10 February, 2016).
59. Ritis K. Shyanti, A. Sehrawat, S.V. Singh, J. P. N. Mishra and **Rana P. Singh**. Zerumbone Inhibits Breast Cancer Growth and Survival by Modulating Immunological Checkpoint CD1d, 6th International Translational Cancer Research Conference-2016, The Gujarat Cancer & Research Institute, Hyatt Regency, Ahmedabad. (04-07 February, 2016).
60. Ankita Jaiswal, **Rana P. Singh**. Study of Anti-Cancer Effects of Plumbagin on Human Cervical Carcinoma SiHa and HeLa cells. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
61. Nupoor Prasad¹, **Rana P. Singh**, Umesh C S Yadav. Anti-Cancer Efficacy of Acacetin Against Colorectal Carcinoma Cells. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
62. Vijay Mohan and **Rana P. Singh**. Anti-Cancer Potential of Evodiamine on Human Carcinoma Cells. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
63. Kunal Kumar, Akash Sabarwal, Dhanir Tailor, Rajesh Agarwal, **Rana P. Singh**. Mancozeb Induces Apoptosis in Human Gastric Carcinoma Cells Accompanied by Activation of Reactive Oxygen Species. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).

64. Narendra Singh and **Rana P. Singh**. Inhibitory Effect of Usnic Acid on Proliferation and Survival of Lung Cancer cells. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
65. Dhanir Tailor, Eun-Ryeong Hahm, Shivendra V. Singh and **Rana P. Singh**. Butyric Acid Reverts DRP1-Induced Cell Migration, Epithelial–Mesenchymal Transition and Stemness in Colorectal Cancer cells. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
66. Akash Sabarwal, Rajesh Agarwal, **Rana P Singh**. Fisetin Inhibits Growth, Induces G1 Arrest and Apoptosis of Human Gastric Carcinoma AGS and SNU-1 Cells Involving Disruption of Mitochondrial Membrane Potential. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
67. Surya P. Singh, Praveen Kujur, Dhanir Tailor, Arpit Dheeraj, **Rana P. Singh**. Carica papaya Aqueous Leaf Extract Induces Cell Cycle Arrest and Apoptosis in Prostate Cancer Cells. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
68. Mohd. Nauman, R. K. Kale and **Rana P. Singh**. Study of Relation Between Redox Potential and Antioxidant Activity of Selected Phytochemicals – Implication for Cancer Prevention and Therapy. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
69. Tariq Bhat, Dhanya Nambiar, Arpit Dheeraj, Dong-sool Yim, **Rana P. Singh**. Decursin Inhibits the Proliferation of Prostate Carcinoma Cells by Induction of Cell Cycle Arrest and Inhibition of Epidermal Growth Factor Receptor Signaling. International Symposium on Recent Advances in Radiobiology, Stem Cells and Cancer Research, Jawaharlal Nehru University, New Delhi, India. (February, 19-21, 2015).
70. Chandrajeet Singh, R.K. Kale¹, and **Rana P. Singh**. Role of protein glycosylation in cell-extracellular matrix interaction and cancer progression. 5th International Conference on Stem Cells and Cancer (ICSCC-2014): Proliferation, Differentiation and Apoptosis, at Jawaharlal Nehru University (JNU), New Delhi, India. (November 8 -10, 2014).
71. Dhanya K Nambiar, Paul Rajamani, **Rana P. Singh**. Silibinin radiosensitizes prostate cancer cells by enhancing radiation-induced cell death and inhibiting nuclear EGFR-mediated DNA repair. Annual Meeting of AACR, 2014, San Diego, CA, **USA**. (April 5-9, 2014).
72. Dhanya K. Nambiar, Gagan Deep, **Rana P. Singh**, Chapla Agarwal, Rajesh Agarwal. Silibinin inhibits lipid metabolism by primarily targeting the master regulator sterol

- response element binding protein 1 (SREBP1) in prostate cancer cells. Annual Meeting of AACR-2014, San Diego, CA, USA. (April 5-9, 2014).
73. Dhanir Tailor, Eun-Ryeong Hahm, Raosaheb K. Kale, Shivendra V. Singh and **Rana P. Singh**. Title: Sodium butyrate, a product of microbial commensalism induces mitochondrial fusion and apoptosis in human colorectal cancer cells. International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (Oral presentation) (November 19-20, 2013).
 74. Nupoor Prasad, Dhanir Tailor and **Rana P. Singh**. Title: Study of anticancer efficacy of lupeol against cervical carcinoma HeLa cells. International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (November 19-20, 2013).
 75. Prerna Ramteke, Dhanir Tailor and **Rana P. Singh**. Title: Study of the effect of hesperetin on inflammatory mechanisms in lung cancer cells. International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (November 19-20, 2013).
 76. Reenu Punia, R. K. Kale, Man Singh and **Rana P. Singh**. Title: Physicochemical characterization of cancer chemopreventive agent, silibinin in complex with phosphatidylcholine International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (November 19-20, 2013).
 77. Narendra Singh, Raosaheb K. Kale and **Rana P. Singh**. Title: Effect of usnic acid on growth and cell cycle progression of human lung carcinoma A549 cells. International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (November 19-20, 2013).
 78. Shantishree Vundru, Raosaheb K. Kale and **Rana P. Singh**. Title: The anti-proliferative and pro-apoptotic effects of β -sitosterol on human breast carcinoma cells. International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (November 19-20, 2013).
 79. Vijay Mohan and **Rana P. Singh**. Title: A novel anticancer agent, evodiamine, induces G2-M arrest in human lung carcinoma A549 cells. International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (November 19-20, 2013).
 80. Viral V. Surati, A. K. Singh and **Rana P. Singh**. Title: Antibacterial and phytochemical screening of *Viola odorata*. International Conference on Advances in Biotechnology and Bioinformatics at Dr. D. Y. Patil Vidyapeeth, Pune, India. (November 25-27, 2013).
 81. Reenu Punia, R. K. Kale, Man Singh and **Rana P. Singh**. Title: Physicochemical characterization of silibinin in complex with carboxymethyl cellulose and implications

- for drug formulation. At International Conference on Advances in Biotechnology and Bioinformatics, Dr. D. Y. Patil Vidyapeeth, Pune, India. (November 25-27, 2013).
82. Vandana Prajapati, R.K. Kale, **Rana P. Singh**. Effects of silibinin against arsenic-induced skin cancer. Biosparks 2014, SLS, Jawaharlal Nehru University, New Delhi, India. (March 21-22, 2014). (Oral presentation)
 83. Vandana Prajapati, R.K. Kale, **Rana P. Singh**. Chemopreventive effects of silibinin against arsenic-induced skin carcinogenesis *in vitro* and *in vivo*. XIII International Congress of Toxicology, Coex, Seoul, South Korea. (June 30 – July 4, 2013).
 84. Sivapar V. Mathan and **Rana P. Singh**. Study of anticancer effects and associated mechanism of Diallyl trisulfide (DATS) on head and neck cancer. International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (November 19-20, 2013).
 85. Anil Mittal, Saba Tabassum and **R. P. Singh**. Berberine and Doxorubicin inhibits cancer cell growth *in vitro* and *in vivo*. International Conference on Recent Advances in Cancer Prevention and Therapeutics at Central University of Gujarat, Gandhinagar, India. (November 19-20, 2013).
 86. Praveen Kumar Kujur, **Rana P. Singh**. Chemomodulation of liver cancer by Decursin. International Conference on Recent Advances in Cancer Research: Bench to Bedside, Gandhinagar, Gujarat, 19-20 February 2011.
 87. Vandana Prajapati, R.K. Kale, **Rana P. Singh**. Modulatory effect of silibinin on arsenic-induced changes in cancer cells. 36th Annual Conference of Environmental Mutagen Society of India (EMSI) and International Symposium on Environmental Exposures to Mutagens and Carcinogens on Human Health, Vellore, Tamil Nadu, 4-6 February 2011.
 88. Anil Mittal, **Rana P. Singh**. Combinatorial effects of berberine and doxorubicin on prostate cancer cells. International Conference on Recent Advances in Cancer Research: Bench to Bedside, Gandhinagar, Gujarat, 19-20 February 2011.
 89. Dhanya K. Nambiar, **Rana P. Singh**. Radiosensitizing effects of silibinin in prostate cancer. International Cancer Research Symposium-2010 on Defining and Translating Science Behind the Disease, RGCB, Trivendrum, Kerala, 20-22 December, 2010.
 90. **Rana P. Singh**, Tariq A. Bhat, Dhanya Nambiar, Velmurugan Balaiya, Rajesh Agarwal. Decursin inhibits advanced human prostate tumor xenograft growth involving antiproliferative and antiangiogenic mechanisms. 101st Annual Meeting of AACR, Washington, DC, USA, April 2010. (Late breaking)
 91. Dhanya K. Nambiar, M. Chamoli, **Rana P. Singh**. *In vitro* assessment of combinatorial effect of silibinin and ionizing radiation on prostate cancer cells. International Symposium on Cancer Chemoprevention and Translational Research, Jawaharlal Nehru University, New Delhi, India, 21 December 2009.

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93. **Rana P. Singh**, Komal Raina, Gagan Deep and Rajesh Agarwal. Silibinin suppresses growth of human prostate carcinoma PC-3 orthotopic xenograft via inhibition of STAT and activation of ERK1/2 signaling. 99th Annual Meeting of AACR, San Diego, CA, USA, April 2008. (Late breaking)
94. Alpana Tyagi, **Rana P. Singh**, Kumaraguruparan Ramasamy, Lori D. Nield, Al Malkinson and Rajesh Agarwal. Growth inhibition of urethane-induced lung tumors in A/J mice by silibinin: modulation of angiogenesis by macrophage-associated cytokines, and STAT3 and NF- κ B. 99th Annual Meeting of AACR, San Diego, CA, USA, April 2008.
95. K. Ramasamy, Alpana Tyagi, Elizabeth Redente, **Rana P. Singh**, Lori D. Nield, Al Malkinson and Rajesh Agarwal. Chemopreventive effect of silibinin on early lesions in urethane-induced lung tumorigenesis in A/J mice. 99th Annual Meeting of AACR, San Diego, CA, USA, April 2008.
96. Chapla Agarwal, Velmurugan Balaiya, **Rana P. Singh**, Nidhi Kaul and Rajesh Agarwal. Grape seed extract inhibits intestinal tumorigenesis in APC^{min} mice and decreases COX-2 and iNOS together with an increase in Cip1/p21 level. 99th Annual Meeting of AACR, San Diego, CA, USA, April 2008.
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99. **Rana P. Singh**, Gagan Deep and Rajesh Agarwal. Dietary feeding of silibinin inhibits PC-3 tumor xenograft growth via ERK1/2 activation and an increase in Cip1/p21 and Kip1/p27 expression. 98th Annual Meeting of AACR, Los Angeles, CA, April 2007.
100. **Rana P. Singh**. Chemoprevention of lung cancer by targeting tumor angiogenesis. Indo-US Symposium on Tobacco-related Diseases under 5th World Assembly on Tobacco Counter Health (WATCH) Conference, New Delhi, India, December 4, 2007.
101. Mallikarjuna Gu, **Rana P. Singh** and Rajesh Agarwal. Silibinin inhibits in vivo growth of colorectal cancer by inhibiting tumor cell proliferation and angiogenesis in athymic nude mice. 98th Annual Meeting of AACR, Los Angeles, CA, April 2007.

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103. Alpna Tyagi, **Rana P. Singh**, Chapla Agarwal, Gail Harrison, LM Glode and Rajesh Agarwal. Chemopreventive effect of silibinin and silymarin on n-butyl-n-(4-hydroxybutyl) nitrosamine-induced urinary bladder carcinogenesis in male ICR mice. 98th Annual Meeting of AACR, Los Angeles, CA, April 2007.
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106. Gu Mallikarjuna, **Rana P. Singh**, S. Dhanalakshmi, Chapla Agarwal and Rajesh Agarwal. Inositol hexaphosphate down-regulates both constitutive and ligand-induced mitogenic and cell survival signaling, and causes caspase-mediated apoptotic death of human prostate carcinoma PC3 cells. 97th Annual Meeting of AACR, Washington, DC, April 2006.
107. Gu Mallikarjuna, S. Dhanalakshmi, **Rana P. Singh**, Chapla Agarwal and Rajesh Agarwal. Silibinin inhibits UVB-induced skin tumorigenesis by down-regulating STAT3 and NF-kappa B activation. 97th Annual Meeting of AACR, Washington, DC, April 2006.
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109. Gu Mallikarjuna, Sarumathi Mohan, S. Dhanalakshmi, **Rana P. Singh** and Rajesh Agarwal. Protective efficacy and associated mechanisms of silibinin against UVB-induced skin tumorigenesis in SKH-1 hairless mice. 96th Annual Meeting of AACR, Anaheim, CA, USA. April 2005.
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- implications for the prevention of photocarcinogenesis. 96th Annual Meeting of AACR, Anaheim, CA, USA. April 2005.
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 114. Srirupa Roy, Manjinder Kaur, Chapla Agarwal, **Rana P. Singh**, Rajesh Agarwal. Role of cyclin-dependent kinase inhibitors p21 and p27 in silibinin-induced G1 arrest in DU145 prostate cancer cells. 96th Annual Meeting of AACR, Anaheim, CA, USA. April 2005.
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 116. D. S. Yim, **Rana P. Singh**, Sook Y. Lee, Chapla Agarwal and Rajesh Agarwal. A novel anticancer agent, decursin, induces G1 arrest and apoptosis in human prostate carcinoma DU145 cells. 95th Annual Meeting of AACR, Orlando, FL, USA. March 2004.
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