

Farrukh Aqil, Ph.D.

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EDUCATION

June 1998 B. Sc. (Chemistry) Aligarh Muslim University, Aligarh, India
June 2000 M. Sc. (Microbiology) Aligarh Muslim University, Aligarh, India
June 2006 Ph. D. (Microbiology) Aligarh Muslim University, Aligarh, India
Dec 2021 M. S. (Biostatistics) University of Louisville, Louisville, KY
June 2024 Certificate in Clinical Investigation Sciences (CCIS), UofL, Louisville, KY

ACADEMIC APPOINTMENTS

July 2024 - **Associate Professor**
Department of Medicine, Brown Cancer Center, University of
Louisville, Louisville, KY 40202, USA

Feb 2024 - **Associate Professor (Joint appointment)**
Department of Pharmacology and toxicology, Brown Cancer Center,
University of Louisville, Louisville, KY 40202, USA

Aug 2014 - June 2014 **Assistant Professor**
Department of Medicine, Brown Cancer Center, University of
Louisville, Louisville, KY 40202, USA

Aug 2012 - July 2014 **Instructor**
Department of Medicine, James Graham Brown Cancer Center,
University of Louisville, Louisville, KY 40202, USA

Sep 2007- July 2012 **Postdoctoral Associate**
Cancer Chemoprevention Group, James Graham Brown Cancer
Center, University of Louisville, Louisville, KY 40202

July 2006 - August 2007 **Lecturer**
Department of Microbiology and Biotechnology, Integral University,
Lucknow, India

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

2016 - American Society for Exosomes and Microvesicles, USA
2014 - International Society for Extracellular Vesicles, USA
2008 - American Association for Cancer Research, USA
2003 - International Society for Infectious Diseases, USA

HONORS AND AWARDS

- 2023 Recognized for Research and Scholarship by the University of Louisville.
- 2022 Recognized for Research and Scholarship by the University of Louisville.
- 2021 EPIC Invention award, University of Louisville, Louisville, KY USA
- 2019 EPIC Invention award, University of Louisville, Louisville, KY USA
- 2019 Travel award from 3P Biotechnologies for ASEMV meeting.
- 2015 Received honor by the Administration of University of Louisville at Faculty Excellence Award Ceremony-2015.
- 2014 Travel Grant by Brown Cancer Center, UoL to attend ISEV-2014, The Netherlands.
- 2013 Received honor by the Administration of the University of Louisville at Faculty Excellence Award Ceremony-2013.
- 2012 Received honor by the Administration of University of Louisville at Faculty Excellence Award Ceremony-2012 for valuable contribution which results in the application of US patents.
- 2010 Travel Grant awarded by School of medicine, University of Louisville to attend the International conference.
- 2010 Travel Grant awarded by International Center, University of Louisville to attend the International conference.
- 2010 Travel Grant by CGEMM, University of Louisville for the International conference.
- 2005 Travel Grant by Deptt. of Science and Technology, India for the International meeting at Badajoz, Spain.
- 2003-2006 Received Junior Res. Fellowship from Univ. Grant Commission, New Delhi, India.
- 2003 Best Poster Award in National Symposium on Emerging Trends in Indian Medicinal Plants, CSTUP, Lucknow. October 2003.

REVIEW PANEL, COMMITTEE ASSIGNMENTS, AND ADMINISTRATIVE SERVICES

- 2024 Served on the National Science Foundation (NSF) review panel of study section in May, 2024.
- 2024 Served on National Center of Science and Technology Evaluation (NCSTE), Kazakhstan review panel of study sections in Feb 2024 and May 2024.
- 2024 Session Chair – Cancer Immunotherapy. Annual meeting of International Society of Extrasellar Vesicles, 2024, Melbourne, Australia.
- 2023 Secretary, Cellular and Molecular Biology Section, Kentucky Academy of Science (KAS), KY, USA
- 2023 Session Chair - Cellular and Molecular Biology Section. Annual conference of Kentucky Academy of Science, Florence, Kentucky, Nov 04, 2023.
- 2023 Served on Search committee for the appointment of two positions.
- 2023 served on the International Grant Review panel of UP Council of Science and Technology, India, “Biotechnology Review Panel” July 4-11, 2023.
- 2023 Served on NIH review panel of study section “Drug Discovery and Molecular Pharmacology C (DMPC)” in March 2023.

2023	Served on National Center of Science and Technology Evaluation (NCSTE), Kazakhstan review panel of study section in April 2023.
2023	Serving on Meyzeek' middle school's Site-Based Management (SBDM) Council.
2022	Served on National Center of Science and Technology Evaluation, Kazakhstan review panel of study section in August 2022.
2022	Served on National Center of Science and Technology Evaluation, Kazakhstan review panel of study section in June 2022.
2022	Session Chair - Natural and Engineering EVs as Therapeutics. Annual meeting of International Society of Extrasellar Vesicles, 2022, Lyon, France.
2020	Served as organizing secretary, and organized a National conference on Omics for Food, Health and Environment, Gorakhpur India, Feb 2020.
2019-23	Served on various student's graduate committees

EDUCATIONAL ACTIVITIES

(i) Teaching

I have been involved in teaching and research and have served as the in-charge of Department of Microbiology and Biotechnology, Integral University, Lucknow, India from Jul 2006 to Aug 2007.

(ii) Laboratory Teaching: Training post-doctoral associates.

<u>Raghuram Kandimalla</u> , Ph.D.	Apr 2019 – Present
17 Conference presentations; Dr. Aqil is the first/senior author in 8.	
8 Peer-reviewed articles (review/research) - Dr. Aqil is the first/corresponding author in 6.	
<u>Ashish Agarwal</u> , Ph.D.	Jan 2015 – May 2018
Published nine research/review articles and one book chapter with Dr. Aqil.	
Awarded AAPS PDF Award-2017 at annual AAPS conference, Nov, 2017. San Diego, USA	
Awarded Best Poster Award at annual meeting of ISEV. May 2017. Toronto, Canada	
Awarded "Gandhian Young Technological Innovation Awards, 2017" Mar 2017. New Delhi.	

(iii) Laboratory Teaching: Mentoring Graduate Students, Undergraduate Students, High Schoolers and Clinical Fellow

<u>Disha Moholkar</u> - Graduate (PhD) student	Aug 2022 –
Awarded- III prize in Research Louisville- 2023	
<u>Al-Hassan Kyakulaga</u> - Graduate (PhD) student	Aug 2014 – 2019
<u>Divya Karukonda</u> – Master student	Aug 2015 – Aug 2017
<u>Akash Gupta</u> - Undergraduate student	Jun 2009 – Dec 2010
Awarded- II prize in Research Louisville- 2009	
Awarded prestigious "Thomas J. Bardos Science Education Awards" in AACR.	
Awarded- 1 st prize in AACR 2011 in undergraduate category presentation.	
Paige Neil – Under Graduate (Premed) student	Jun 2024 – Aug 2024
<u>Samir-Yitzhak Gadre</u> - High School student	Jun 2010 – Aug 2011

Awarded- II prize in Research Louisville- 2011
 Awarded- III prize in Louisville metro school science competition
 Selected for the presentation in the Annual meeting of American Association of Cancer Research, AACR-2012, Chicago (Abst. # 2883).

Prisha Tyagi – High School student

Presented in Research Louisville 2023

Presented in BCC Retreat, Louisville 2023

Undergraduate student - Provided training to five undergraduates -

Rachel Jennifer Siow (2012) – Received 4th in Research Louisville – 2012

Cameron Campbell (2013)

Kendall Huddleston (2014) – Received 2nd in Research Louisville – 2014

Cady Barbour (2018)

Stacy Henley (2019)

Clinical fellow

Diogo Torres (June 2013 – Feb 2015)

GRANTS AND CONTRACTS

Current grants

57158 – UofL-Basic Grant Aqil, F. (PI) 6/24 – 5/25
 Exosomal Drug Delivery
 Project Amount: \$25,000.00

OGMB190688L1 – COBRE Pilot Project Aqil, F. (PI) 8/23 – 1/25
 NIH Reference # 5P20GM135004-04 (New Grant)
 Engineered milk exosomes for lung cancer immunotherapy
 Project Amount: \$50,000.00

OGMN210165 - 3P Biotech, Inc. Contract Gupta, R.; Aqil, F. (MPI) 08/20 – 12/24
 Title: “Exosomes and eExosomes - Biodistribution and Efficacy”
 This is a research agreement from 3P Biotechnologies to develop gene delivery technology using milk/colostrum-derived exosomes against various cancers.
 Role: MPI
 Project Amount: \$262,101.00

JHFEREG – UofL Internal Grant Gupta, R.; Aqil, F. (MPI) 03/24 – 02/25
 Title: Targeted exosomal oral delivery of cannabidiol (CBD) against breast cancer
 Role: MPI
 Project Amount: \$62,900.00

Louisville Research Core (LRC) Voucher Program Aqil, F. Gupta, R.; (MPI) 01/24 – 10/24
 Title: “Targeted oral delivery of exosomal cannabidiol (CBD) for treatment of breast cancer and its mechanism of action”
 Project Amount: \$9,118.

Grants (Previous)

OGMB190465 - RDICC Int. grant Aqil F. (PI) 08/20 – 07/24

Title: Nanoparticles formulation for the delivery of Celastrol.

The major goal of this grant is to determine efficacy of potent plant therapeutic, celastrol using folic acid functionalized exosomal delivery against lung cancer.

Role: PI

Project Amount: \$63,500.00

OGMB210506 - STTR Phase I Gupta RC, Aqil, F (MPI) 07/22 – 06/24

NIH Reference # R41 OD031942

Title: Engineered Exosomes for Targeted Delivery of the CRISPR/Cas9 Genome-editor

Role: MPI

Project Amount: \$79,800.00

OGMB170558 - KLCRP Aqil (PI) 11/22 – 03/24

Developing 'liquid biopsy' for lung cancer patient population and prediction of lung cancer recurrence and metastasis.

The focus of the grant is to determine differential expression of exosomal miRNA 'signature' as well as build prediction model combining information from miRNA data and 2 bioassays in simulated data.

Role: PI

Project Amount: \$150,000.00 (50,000 for 11/22 – 12/23)

OIEB190030 - 3P Biotech, Inc. Contract Gupta, R.; Aqil, F. (MPI) 07/18 – 12/22

Title: Effect of Exosomal Formulations on Lung and Breast cancer.

NCI-R44-CA-221487 Gupta, RC; Aqil F. (MPI) 09/17 – 08/21

Title: Exosomal Drug delivery

OGMB180804 - WPI, Worcester, MA Rai, SN (PI) Aqil, F. (Co-I) 05/18 – 8/20

Title: The Nano-CTC Chip

OICB140662 - 3P Biotech, Inc., Louisville, KY Gupta, RC; Aqil F. (MPI) 9/14 – 02/16

Title: Effect of exosome formulation on lung and breast cancer

OGMB130782 - U.S. Highbush Blueberry Council Gupta, RC; Aqil F. (MPI) 7/13 – 02/15

Title: Therapeutic Activity of Blueberry Against Lung Cancer

PATENTS:

University of Louisville Research Foundation filed the following pending patent applications to protect the valuable technology described in ULRF Research Disclosure, ref. #08046, entitled, *Methods and Compositions for the Controlled Delivery of Phytochemical Agents* ("ULRF Technology"): Inventors – R.C. Gupta, M.V. Vadhanam and **F. Aqil**

- United States Provisional Patent Application ser. no. 61/035,153; filed March 10, 2008
- United States Provisional Patent Application ser. no. 61/096,108; filed Sept. 11, 2008
- United States Patent 8,142,806, issued March 27, 2012

- United States Patent Application, ser. no. 13/429,601; filing date March 26, 2012; **Publication # US20120231079 A1 and US8858995 B2.**
- Patent Cooperation Treaty (PCT) Application PCT/US09/36663; filed March 10, 2009
- European Patent Application # 09719335.3; filed October 4, 2010
- Australian Patent Application # 2009223653; filed October 4, 2010;
- Canadian Patent Application # 2,755,014; filed September 8, 2011; and
- U.S. Continuation-in-Part Patent Application, ser. no. 13/429,601; filed March 26, 2013.

US Patent issued: Gupta, R.C., Munagala, R., **Aqil, F.**, Jeyabalan, J. **Milk-derived microvesicle compositions and related methods.**

- U.S. Patent Application Serial No. 14770634; EFS ID: 23318374; C/M Code: 5376;
- International Application Number: PCT/US2014/018601. April 7, 2018.
- U.S. Patent Application Serial No. 15/910,322 - Notice of Allowance (ULRF 13027-04)
- US Patent App. 16/531,215; Patent # US20190374467A1; Date of Pub: **12.12.2019**
- Microvesicles compositions and related methods for providing enhanced bioavailability and efficacy. ULRF Ref: 18025-01, Our Ref: UN024/18025; Oct 04, 2017
- Microvesicle compositions and methods for treatment of ovarian cancer. ULRF Ref: 18023-01 Our Ref: UN024/18023; Oct 04, 2017. Application Serial No. 62/567,911.

Provisional Utility Patent: Agrawal, A.A., Aqil, F., Jeyabalan, J., Munagala, R., Spencer, W.A., Gupta, R.C. Milk-derived exosomes for oral delivery of paclitaxel. Patent Application Number: 62460714, Feb 17, 2017.

U.S. Patent Application 62/797,825, filed 28 January 2020. Exosome-Mediated Transfection for Delivery of Nucleic Acids. Gupta RC, Munagala R, Jeyabalan J, Wallen RM, Spencer WA, **Aqil F.** US Patent App. 17/425,928; **Patent # 20220347109** – A1: Date of Publication: **11.03.2022**

EDITORIAL WORK

Journal Editorial Boards

Section Editor in Chief – Cancers

Section Editor, Cancer Research Section – NeuroPharmac Journal

Associate Editor – International Research Journal of Microbiology (Since 2011).

Editor for Special Issues

1. Cancer Letters – Exosome in Therapy (Impact Factor 9.76)
2. Cancers - Exosomes in Cancer Therapy (Impact factor 6.58)
3. Frontiers in Pharmacology – Role of Phytochemicals and Structural Analogs in Cancer Chemoprevention and Therapeutics (Impact factor 5.98)
4. Current Drug Metabolism – Phytochemical-based Nano-formulation for Cancer Management (Impact factor 2.9)
5. Applied Sciences – Recent Developments in The Use of Nanoparticles for Treatment of Biofilms (Impact factor 2.7).
6. Cancers – Nanotherapeutics in Cancer Management (Impact factor 6.58)

Editorial Board Member

- Journal of Medicine and Radiography
- Journal of Cancer Therapy
- Journal of Microscopic Creatures.
- EC Bacteriology and Virology Research,
- BAOJ Clinical trials.
- Global Journal of Microbiology Research
- Journal of Clinical Breast Cancer Research
- International Journal of Cancer Biology
- Biomedical Research and Reviews (BRR)
- Advances in Microbiology Research
- Journal of Cancer Open Access
- Annals of Thoracic Oncology Research
- Int Journal of Scientific Research in Environmental Science and Toxicology
- SciFed Virology Research Journal

Peer reviewer

Cancer Letters, Science Advances, Scientific reports, Cancers, Journal of Controlled Release, Pharmaceutics, Phytomedicine, Drug Delivery and Translational Research, Journal of Agricultural and Food Chemistry, Annals of Clinical Microbiology and Antimicrobials, International Journal of Molecular Sciences, Food and Chemical Toxicology, Molecules, Bioresource Technology, Hazardous Material, Journal of Basic Microbiology, Food Research International, African Journal of Biotechnology, Journal of Environmental Biology, Defence Life Science Journal, Journal of Medicinal Plant Research, Industrial Crops and Products, BMC Complementary and Alternative Medicine, Annals of Saudi Medicine, International Research Journal of Pharmacy and Pharmacology, Journal of Microbiology and Antimicrobials, African Journal of Microbiology Research, The Journal of Toxicological Sciences, CLEAN - Soil Air Water, Letters in Applied Microbiology, LWT - Food Science and Technology.

PUBLICATIONS

Peer review articles - **96**
Book Chapters - **15**
ORCID NUMBER - **0000-0002-0081-7251**

Citations: Over 11,000 citations of my research articles in [Google Scholar](#) with h-index of 49 and i10-index of 89. Thirty of these articles cited on an average of 250 times each (above 8,000 times total). He has over 1000 citations per year for the last 5 years.

Special recognition of articles -

- **Aqil et al.**, Nutrition and Cancer, 64: 428-438, 2012 was featured in [Nutrition Frontier](#), a quarterly publication of the Nutritional Science Research Group (NSRG), National Cancer Institute (NCI) and National Institute of Health (NIH).

- Kausar H, Jeyabalan J, **Aqil F**, et al., Cancer Letters, 325: 54-62, 2012 was featured in the Global Medical Discovery Series as it is identified as being of special interest to the drug development. GMD is circulated 365,000 monthly to academic and industrial personnel.
- Munagala, R., **Aqil, F.**, Jeyabalan J. and Gupta, R.C. Bovine milk-derived exosomes for drug delivery. 371: 48-61, 2016. Was featured in Atlas of Science, Feb 2016.
- Article (Indian Journal of Pharmacology 43: 236-245, 2011) featured on the cover of the Journal.

ABSTRACTS AND PRESENTATIONS

Invited talks/presentations

1. Berry Anthos for the Management of various Cancers. Invited Talk in Berry Health Benefits Symposium, March 28–30, 2017, Pismo Beach, California, USA.
2. Cancer Prevention and Therapeutic Efficacy of Berry Bioactives in Pre-clinical Studies. Invited talk, Berry Health Benefits Symposium, Oct 13–15, 2015, Wisconsin, USA.
3. Breast cancer chemopreventive potential of ‘jamun’, the Indian blackberry. Paper presented in DDNPTM November 2010, NIPER, S.A.S. Nagar, India.
4. Potent chemoprotective activity of Apiaceae spices. Presented in NCI Translational Science Meeting. November 5-7, 2009. Vienna, VA. USA.
5. Novel activity of certain bioactive medicinal plant extracts against multiple drug resistant bacteria. Presented in 10th International Conference of ISCB on Drug discovery: Perspective and Challenges. February 24-25, 2006, CDRI, Lucknow.
6. Anti-MRSA activity of certain Indian medicinal plants. National Symposium on Emerging Trends in Indian Medicinal Plants. CSTUP, Lucknow. Oct 10-12, 2003.
7. Extraction and determination of antimicrobial activity of *Bryophyllum pinnatum* Kurz. Herbo-2002, Haryana, October 17-19, 2002
8. Cancer Prevention and Therapeutic Efficacy of Berry Bioactives in Pre-clinical Studies. Invited Talk in the University of SSU Gorakhpur University, India, June 18, 2018.
9. Colostrum exosome-based delivery of siRNAs and inhibition of lung cancer. Annual meeting of International Society of Extracellular Vesicles, 2022, Lyon, France.
10. Targeted Exosomal Drug Delivery: A Promising Approach to Cancer Therapy. Invited Talk in the Department of Microbiology, AMU, Aligarh, India, 23rd June, 2023.

Poster Presentations

Several posters received best poster awards in local, national and international meetings.

National/International Meetings	–	91 presentations
Local/Regional Meetings	–	17 presentations

1. **Aqil, F.**, Srivastava PK and Ahmad I (2002). *Cichorium intybus* L. (Chicory): A potential plant for antimicrobial herbal drug. 4th Indian Agricultural Scientist and Farmer's Congress, Meerut, India Feb 16-17, 2002, p. 34.

2. **Aqil, F.**, Farooq S. and Ahmad I. (2002). Pot cultivation, extraction and determination of antimicrobial activity of *Bryophyllum pinnatum* Kurz. Herbo-2002, Haryana, October 17-19, 2002
3. Ahmad I. and ***Aqil, F.** (2003). Anti-MRSA activity of certain Indian medicinal plants. National Symposium on Emerging Trends in Indian Medicinal Plants. CSTUP, Lucknow. October 10-12, 2003.
4. Ahmad I. and ***Aqil, F.** (2003) Broad-spectrum antibacterial and antifungal activities and potency of crude alcoholic extract and fractions of *Delonix regia* flowers. 2nd World Congress on Biotechnological Developments of Herbal Medicine. NBRI, Lucknow. February 20-22, 2003.
5. **Aqil, F.**, Mahmood Z. and Ahmad I. (2003). Antioxidant Properties of Extracts and Fractions of Chicory, Tulsi and Gulmohar. 2nd World congress on biotechnological developments of herbal medicine. NBRI, Lucknow. February 20-22, 2003.
6. **Aqil, F.** and Ahmad I. (2004). Antibacterial activity of certain Indian medicinal plants against methicillin resistant *Staphylococcus aureus* (MRSA). IUPAC International conference on Biodiversity and Natural Products: Chemistry and Medical Applications, January 26-31, 2004, New Delhi (India). P-30
7. Siddiqui, Z.N., Ahmad, J., Ahmad, I., **Aqil, F.** and Khuwaja G. (2004). Broad-spectrum antimicrobial activity of lignan isolated from *Piper cubeba*. International Conference on Recent Advances in Biomedical and Therapeutic Sciences, Bundelkhand University Jhansi, January 13-15, 2004.p, 249
8. Ahmad, I., **Aqil, F.** and Alam MZ (2004) Distribution of β -lactamases among environmental isolates of enteric bacteria: Substrate specificity and transferable nature. 45th Annual Conference of Association of Microbiologists of India, National Dairy Research Institute, Karnal. November 23-25, 2004 (MD-MAI-25), p.109.
9. **Aqil, F.** and Ahmad, I. (2005) Targeted screening of traditionally used Indian medicinal plants against problematic groups of multi-drug resistant bacteria. 1st International Conference on Environmental, Industrial and Applied Microbiology "BioMicroWorld-2005" March 15-18th 2005, Badajoz, Spain.
10. Ahmad, I., Zahin, M. and **Aqil, F.** (2006). Novel activity of certain bioactive medicinal plant extracts against multiple drug resistant bacteria. 10th International Conference of ISCB on Drug discovery: Perspective and Challenges from February 24-25, 2006, CDRI, Lucknow, India.
11. **Aqil, F.**, Zahin, M. and Ahmad, I. (2007) Multiple bioactivities of *Punica granatum* L. (Anar) extracts with special reference to antimutagenicity. International Symposium on Genomic Instability and Cancer. July 22-26, 2007. Kashmir, India.
12. Zahin, M., **Aqil, F.**, and Ahmad, I. (2007). Mutagenic, antimutagenic and antioxidant properties of certain traditionally used Indian medicinal plants. International Symposium on Genomic Instability and Cancer. July 22-26, 2007. Kashmir, India.

13. Vadhanam, M., Ravoori, S., **Aqil, F.** and Gupta RC. (2008) Ellagic acid administered by a novel, sustained drug-delivery system inhibits estrogen-induced mammary carcinogenicity. Proc Am Assoc Cancer Res. Vol 49: Abst # 3835.
14. Gupta, R.C., Bansal, S.S., **Aqil, F.**, Jeyabalan, J., Cao, P., Russell, G., Ravoori, S. and Vadhanam, M.V. (2009). Sustained Delivery of Chemopreventive Agents by Polymeric Implants: An effective novel concept. 61st Indian Pharmaceutical Congress, December 11-13, 2009, Ahmedabad, India.
15. Bansal, S.S., **Aqil, F.**, Vadhanam, M.V. and Gupta, R.C. (2009). Bioavailability and *in vivo* efficacy of curcumin by a controlled release implantable drug delivery system. 36th Annual Meeting & Exposition of the Controlled Release Society (CRS), July 18 - 22, 2009 at the Bella Center, Copenhagen, Denmark.
16. Ravoori, S., Kausar, H., **Aqil, F.**, and Gupta, R.C. (2009). Preventive effects of berries on breast cancer development by reducing proliferation and modulating Cyclin D1 in ACI rats. Brown Cancer Center Annual retreat. University of Louisville, Louisville. Nov 5, 2009.
17. Gupta, R.C., Jeyabalan, J., **Aqil, F.**, Vadhanam, M.V., Schultz, D. and Ravoori S. (2009) Potent Chemoprotective Activity of Apiaceae Spices. NCI Translational Science Meeting. Nov 5-7, 2009. Vienna, VA. USA
18. **Aqil, F.**, Jeyabalan, J, Ravoori S, Vadhanam, M.V., Schultz, D., and Gupta, R.C. (2009). Spices of the apiaceae family are protective against estrogen-mediated effects in the rat mammary tumor model. Proc Am Assoc Cancer Res. Vol 50: Abst # 943.
19. Ravoori, S., **Aqil, F.**, and Gupta, R.C. (2009) Prevention of breast cancers in rat model by berries and potential mechanisms. Proc Am Assoc Cancer Res. Vol 50: Abst # 931.
20. Gupta, R.C., Bansal, S.S., **Aqil, F.**, Cao, P., Jeyabalan, J., Russell, G.K., Ravoori, S., and Vadhanam, M.V. (2009). A Novel Concept in Delivering Chemopreventive Compounds. Proc Am Assoc Cancer Res. Vol 50: Abst # 944.
21. Gupta, R.C., Bansal, SS., **Aqil, F.**, Cao, P., Jeyabalan, J., Russell, G., Kausar, H., Munagala, R., Ravoori, S. and Vadhanam, M.V. (2010) Continuous (“24/7”) systemic delivery of chemopreventive agents by polymeric implants – a novel concept. DDNPTM November 2010, NIPER, S.A.S. Nagar, INDIA
22. Gupta, R.C., Arif, JM., **Aqil, F.**, Jeyabalan, J., Vadhanam, MV, Lehmler, H. and Robertson, LW. (2010) Novel DNA adducts detected in rat liver following treatment with PCB38, PCB77 and PCB153. International PCB Workshop 2010” (May 30 – June 2), Visby, Sweden.
23. **Aqil, F.**, Jeyabalan, J., Munagala, R., Ravoori, S., Vadhanam, M.V. and Gupta, R.C. (2010). Chemoprevention of rat mammary carcinogenesis by Apiaceae spices: potential mechanisms. Proc Am Assoc Cancer Res. Vol 51: Abst # 1879.
24. **Aqil, F.**, Jeyabalan, J., Gupta, A., Sharma R.J., Sidana, J., Singh, I.P. and Gupta, R.C. (2010). Chemopreventive potential of ‘jamun’ (Indian blackberry) against estrogen-mediated mammary carcinogenesis. Proc Am Assoc Cancer Res. Vol 51: Abst # 5688.

25. Munagala, R., **Aqil, F.**, Jeyabalan, J., Vadhanam, M.V., and Gupta, R.C. (2010). Increased anti-tumor activity by novel systemic delivery and molecular targets of Tanshinone II A. Proc Am Assoc Cancer Res. Vol 51: Abst # 5690.
26. Vadhanam, M.V., **Aqil, F.**, Bansal, S.S., Cao, P., Jeyabalan, J. and Gupta, R.C. (2010). Sustained Delivery of Chemopreventive Agents by Polymeric Implants: An effective novel concept. Proc Am Assoc Cancer Res. Vol 51: Abst # 5673.
27. Bansal, S.S., Kausar, H., **Aqil, F.**, Vadhanam, M.V. and Gupta, R.C. (2010). Polymeric Implants Enhance Bioavailability of Curcumin by Providing a Continuous (“24/7”) Delivery System. Proc Am Assoc Cancer Res. Vol 51: Abst # 1880.
28. Kausar, H., Jeyabalan, J., **Aqil, F.**, Chabba, D., Sidana, J., Singh, I.P. and Gupta, R.C. (2010). Synergistic anti-cancer activities of berry anthocyanidins on human lung cancer cells. Proc Am Assoc Cancer Res. Vol 51: Abst # 1884.
29. Ravoori, S., Kausar, H., **Aqil, F.**, and Gupta, R.C. (2010). Distinct molecular targets of blueberry and black raspberry in breast cancer prevention. Proc Am Assoc Cancer Res. Vol 51: Abst # 1887.
30. Kausar, H., Jeyabalan, J., **Aqil, F.**, Chabba, D., Sidana, J., Singh, I.P. and Gupta, R.C. (2011). Berry anthocyanidins synergistically suppresses non-small-cell lung cancer cell growth and metastasis and enhances sensitivity to the chemotherapeutic drug paclitaxel. 14th World Conference on Lung Cancer, July 3-7, 2011, Amsterdam. Journal of Thoracic Oncology, 6(6): S930-S931.
31. **Aqil, F.**, Munagala, R., Jeyabalan, J., Vadhanam, M.V. and Gupta, R.C. (2011). Enhanced bioactivity of punicalagins by polymeric implants against benzo[a]pyrene-induced DNA adducts *in vivo*. Proc Am Assoc Cancer Res. Vol 52: Abst # 3711.
32. **Aqil, F.**, Jeyabalan, J., Kausar, H., Bansal, S.S., Russell, G.K., Singh, I.P., Vadhanam, M.V., Ravoori, S., and Gupta, R.C. (2011). Sustained-release, multi-layer polymeric implants for heat-labile compounds. Proc Am Assoc Cancer Res. Vol 52: Abst # 4631.
33. Munagala, R., Vadhanam, M., Kausar, H., Bansal, S.S., **Aqil, F.**, Jeyabalan, J., Ravoori, S., and Gupta, R.C. (2011). MicroRNA ‘signature’ during estrogen-mediated mammary carcinogenesis. Proc Am Assoc Cancer Res. Vol 52: Abst # 155.
34. Vadhanam, M., **Aqil, F.**, Jeyabalan, J., Ravoori, S., and Gupta, R.C. (2011). Bioavailability of ellagic acid/ellagitannins from black raspberry and pomegranate. Proc Am Assoc Cancer Res. Vol 52: Abst # 4603.
35. Jeyabalan, J., **Aqil, F.**, Ravoori, S., Vadhanam, M. and Gupta, R.C. (2011). Steady DNA adduct accumulation by dibenzo[a,l]pyrene implants. Proc Am Assoc Cancer Res. Vol 52: Abst # 5557.
36. Gupta, R.C., Jeyabalan, J., Kausar, H., Bansal, S.S., **Aqil, F.**, Vadhanam, M. and Ravoori, S. (2011). Chemopreventive and chemotherapeutic potential of blueberry and black raspberry against lung cancer using mouse models. Proc Am Assoc Cancer Res. Vol 52: Abst # 4597.

37. Gupta, A., **Aqil, F.**, Kausar, H., Munagala, R., Jeyabalan, J., Sharma, R. Singh, I.P., Gupta, R.C. (2011). Chemopreventive activities of the dark-color fruit 'jamun', the Indian blackberry. Proc Am Assoc Cancer Res. Vol 52: Abst # 4619 (**Awarded 1st Prize**).
38. Bansal, SS., Kausar, H., Vadhanam, M., **Aqil, F.**, Jeyabalan, J., Rai, SN., Ravoori, S., and Gupta, R.C. (2011). Curcumin implants, not curcumin diet inhibits estrogen induced-mammary carcinogenesis. Proc Am Assoc Cancer Res. Vol 52: Abst # 1863.
39. Gupta, R.C., Kausar, H., Jeyabalan, J., and **Aqil, F.** (2011). Blueberry diet and blueberry bioactives inhibit lung cancer and enhance the activity of paclitaxel. Proc. of 50th Anniversary meeting of Phytochemical Society of North America. Dec 10-15, Kohala Coast, Hawai'i. Pharmaceutical Biol, 50(5): 630-631.
40. **Aqil, F.**, Jeyabalan, J., Munagala, R., Ravoori, S., Vadhanam, M.V. and Gupta, R.C. (2012). Prevention of breast cancer by spices: Involvement of miRNAs and other molecular targets. Proc Am Assoc Cancer Res. Vol 53: Abst # 12-A-5804-AACR.
41. **Aqil, F.**, Jeyabalan, J., Munagala, R., Ravoori, S., Sharma, R., Sidana, J., Singh, I.P. and Gupta, R.C. (2012). Breast cancer chemoprevention by 'Jamun', the Indian blackberry: Potential mechanisms. Proc Am Assoc Cancer Res. Vol 53: Abst # 5447.
42. Munagala, R., **Aqil, F.**, Gupta, R.C., Higashi, R. and Vadhanam, M.V. (2012). Pomegranate components modulate distinct pathways in prostate cancer cells. Proc Am Assoc Cancer Res. Vol 53: Abst # 12-A-3833-AACR.
43. Gadre, S., **Aqil, F.**, Jeyabalan, J., Sharma, R., Singh, I.P. and Gupta, R.C. (2012). Enhanced anti-tumor activity and bioavailability of chemopreventives by coated polymeric implants. Proc Am Assoc Cancer Res. Vol 53: Abst # 12-A-6219-AACR.
44. Gupta, RC., Kausar, H., Jeyabalan, J., Sidana, J., Singh, I.P., Munagala, R., and Aqil, F. (2012). 'Color' Therapy – Berry anthocyanidins as potential drug for cancer treatment. Accepted for the presentation in DDNPTM November 2012, NIPER, S.A.S. Nagar, INDIA
45. Ahmad, I., Zahin, M., Husain, F.M. and **Aqil, F.** (2012). "Promising antioxidant and antimutagenic activity of benzene fraction of *Murraya koenigii*." Accepted for the presentation in The XXXII Annual Meeting of Soc. of Toxicol. Lucknow, India.
46. Gupta, R.C., **Aqil, F.**, Kausar, H., Jeyabalan, J., Vadhanam MV and Munagala, R. Therapeutic Potential of Blueberry Anthos ('Color' Therapy). International Berry Health Benefits Symposium, Charlotte, North Carolina, June 18-20, 2013.
47. Gupta, R., Aqil, F., Kausar, H., Jeyabalan, J., Vadhanam, M. and Munagala, R. (2013). Chemosensitizing Effects of Blueberry Anthocyanidins. 16th International Symposium, October 11-13, 2013, Crete, Greece.
48. **Aqil, F.**, Munagala, R., Kausar, H. Jeyabalan, J., and Gupta, R.C. (2013). Enhanced activity of chemotherapeutic drugs by blueberry anthocyanidins and withaferin A against human lung cancer cells. Proc ACCR. 54: Abst # 3678.
49. Jeyabalan, J., **Aqil, F.**, Munagala, R. and Gupta, R.C. (2013). Chemopreventive and therapeutic activity of high anthocyanin-content blueberry against estrogen-mediated breast cancer. Proc Am Assoc Cancer Res. Vol 54: Abst # 3705.

50. Munagala, R., **Aqil, F.** Taylor, D.D. and Gupta, R.C. (2013). Tumor-derived circulatory exosomal miRNAs as biomarkers of recurrent lung tumors. Proc Am Assoc Cancer Res. Vol 54: Abst # 1947.
51. **Aqil, F.**, Munagala, R., Jeyabalan, J., and Gupta, R.C. (2014). Milk derived exosomes: Scalable source of biologically active drug delivery nanoparticles. Proc Am Assoc Cancer Res. Vol 55: Abst # 14-A-3087-AACR.
52. Gupta, R.C., Munagala, R., **Aqil, F.**, and Jeyabalan, J. (2014). Novel Milk-derived exosomes for drug delivery. International Conference on Nanotechnology in the Service of Health, Environment and Society, NanoSciTech 2014, 13-15 February, 2014, Chandigarh, India.
53. Munagala, R., Jeyabalan, J., **Aqil, F.** and Gupta, R.C. (2014). Large-scale isolation and characterization of bovine milk- and colostrum-derived exosomes. ISEV-2014, Rotterdam, The Netherlands, April 30 - May 03.
54. **Aqil, F.**, Munagala, R., Jeyabalan, J., and Gupta, R.C. (2014). Biodistribution of milk-derived exosomes and exosomal-curcumin. ISEV-2014, Rotterdam, The Netherlands, April 30 - May 03.
55. Munagala, R., **Aqil, F.** and Gupta, R.C. (2014). Exosomal biomarkers for primary and recurrent lung cancer. ISEV-2014, Rotterdam, Netherlands, Apr 30-May 03.
56. Gupta, R.C., Jeyabalan, J., **Aqil, F.**, and Munagala, R. (2014). Milk-derived exosomes as a drug carrier. ISEV-2014, Rotterdam, Netherlands, April 30-May 03.
57. **Aqil, F.**, Jeyabalan, J., Munagala, R., and Gupta, R.C. (2015). Cumin extract prevents estrogen associated breast cancer in ACI rats. Accepted for presentation in Annual Meeting of Am Assoc Cancer Res. April 18 - 22, 2015, Philadelphia. Abst # 15-A-4985-AACR.
58. Singh, I.P., Gupta, R.C., Sharma, R.J., **Aqil, F.**, Bansal A.K., and Singh, S. (2015). Developing Herbal Formulation of Anthocyanins and Anthocyanidins-enriched Extracts from *Eugenia jambolana* 'Jamun'. 2015-International Symposium toward the Future of Advanced Research, Jan 27-28, 2015 in Shizuoka University, Japan.
59. Munagala, R., **Aqil, F.** and Gupta, R.C. (2015). Exosomal miRNAs as biomarkers of lung cancer. ISEV-2015, Washington DC, April 23 - 28, 2015, Abst # P-XVII-5.
60. Gupta, R., Jeyabalan, J., Vadhanam, M., Agrawal, A., Cambron, S., O'toole, M., Sherwood, L., Parker, L., Munagala, M., and **Aqil F.** Polyphenolics for the prevention and treatment of various cancers using novel oral, systemic and local delivery technologies. 9th World Congress on Polyphenols Applications, June 3-5, 2015, St Julian's – Malta
61. McKenna, M. K., Nooti, S.K., Frissora, F., Alhakeem, S. S., Gachuki, B.W., **Aqil, F.**, Rangnekar, V. M., Muthusamy, N., Gupta, RC and Bondada, S. Effect of Withaferin A, an Anti-cancer Agent from a Medicinal Plant, on B-cell Chronic Lymphocytic Leukemia. Paper accepted for the presentation in the American Society of Hematology (ASH), December 5-8, 2015, Orlando, Florida, USA.

62. R. Gupta, **F. Aqil**, J. Jeyabalan, A. Agrawal, M. Vadhanam and R. Munagala. Novel controlled-release technologies to enhance efficacy of polyphenols. 7th Int. Conf. on Polyphenols & Health, Oct 27-30, 2015, Congress Center Tours, France.
63. **Aqil, F.**, Agrawal, AK., Jeyabalan, J., Munagala, R. Gachuki, BW., Bondada, S., Parker, L., Spencer W. and Gupta, RC. Oral delivery of the chemotherapeutic drug, paclitaxel via bovine milk exosomes. Annual Conference of ISEV (ISEV-2016), May 4-7, 2016, Rotterdam, The Netherlands.
64. Gupta, RC, **Aqil, F.**, Vadhanam, MV., Jeyabalan, J., Agrawal, AK., Mudd, A., Kyakulaga, AH., Karukonda, D., Spencer, W. and Munagala, R. Milk-derived exosomes – a platform nanocarrier to enhance anti-proliferative, anti-inflammatory and anti-cancer activities of small drug molecules against multiple human cancers. Annual Conference of International Society of Extracellular Vesicles (ISEV-2016), May 4-7, 2016, Rotterdam, The Netherlands.
65. **Aqil, F.**, Jeyabalan, J., Munagala, R. Agrawal, AK., Parker, L., and Gupta, RC. Exosomal Delivery of Small Molecules for the Management of Ovarian Cancer. Annual Conference of International Society of Extracellular Vesicles (ISEV-2017), May 18-21, 2017, Toronto, Canada.
66. Gupta, RC, Jeyabalan, J., Mudd, A., Agrawal, AK., Kyakulaga, AH., Spencer, W. Vadhanam, MV., **Aqil, F.**, and Munagala, R. Milk exosomes enhance anti-proliferative and anti-cancer activities of berry anthocyanidins against multiple human cancers. Annual Conference of International Society of Extracellular Vesicles (ISEV-2017), May 18-21, 2017, Toronto, Canada.
67. Agrawal, AK., **Aqil, F.**, Jeyabalan, J., Kushwah, V., Spencer, W. Beck, J., Gachuki, B, Alhakeem, S., Oben, K., Munagala, R., Bondada, S. and Gupta, RC. Paclitaxel-loaded milk exosomes overcome immunotoxicity following oral administration. Annual Conference of International Society of Extracellular Vesicles (ISEV-2017), May 18-21, 2017, Toronto, Canada.
68. Gupta, RC., **Aqil, F.**, Jeyabalan, J., Agrawal, A., Kyakulaga, AH., Mudd, AM and Munagala R. Milk Exosomes - a Platform Nano Carrier in Drug Delivery. NanoSciTech 2017 Conference, November 9-10, Chandigarh, India.
69. Kyakulaga, AH, **Aqil, F.**, Munagala, R. and Gupta R. Withaferin A inhibits epithelial-to-mesenchymal transition in non-small lung cell cancer cells via regulation of SMAD and NFκB signaling. Annual Meeting of Am Assoc Cancer Res. April 14 - 18, 2018, Chicago. Abst # 18-A-6798-AACR.
70. Gupta, RC, **Aqil, F.**, Jeyabalan, J., A., Agrawal, AK., Kyakulaga, AH., and Munagala, R. Milk exosomes - a 'platform' nano-carrier for siRNA delivery. Annual Conference of International Society of Extracellular Vesicles (ISEV-2018), May 02-07, 2018, Barcelona, Spain.
71. **Aqil, F.**, Munagala, R. Jeyabalan, J., A., Agrawal, AK., Gupta, RC. Milk exosomes – Intranasal versus oral delivery of exosomes and exosomal-curcumin. Annual Conference of International Society of Extracellular Vesicles (ISEV-2018), May 02-07, 2018, Barcelona, Spain.

72. **Aqil, F.**, Munagala, R. Jeyabalan, J., A., Agrawal, AK., Kyakulaga, AH., Gupta, RC. Milk derived exosomes for siRNA delivery. Annual Meeting of American Society for Exosomes and Microvesicles. Oct 6 – 10, 2019, California USA
73. Gupta R, **Aqil F**, Jeyabalan J, Kyakulaga AH, Agrawal A, Tyagi N, Kandimalla R, Schultz DJ, Spencer W and Munagala R. Milk-derived exosomes – a nano platform for delivery of small and large molecules. 24th World Congress on Advances in Oncology, October 10-12, 2019.
74. **Aqil, F.**, Kandimalla, R., Jeyabalan, J. Moholkar, D., Spencer, W. and Gupta R. Biodistribution of colostrum exosomes and tumor targeting of exosomal-paclitaxel formulation against lung cancer. Annual Conference of International Society of Extracellular Vesicles, 2022, Lyon, France.
75. Gupta R. Wallen, M., Kandimalla, R., Jeyabalan, J., Moholkar, D., Munagala, R., Spencer, W. and ***Aqil, F.** Colostrum exosome-based delivery of siRNAs and inhibition of lung cancer. Annual Conference of International Society of Extracellular Vesicles, 2022, Lyon, France.
76. Kandimalla, R., Moholkar, D., Jeyabalan, J., Spencer, W., Gupta R., and **Aqil, F.*** Exosomal-paclitaxel formulation, alone and in combination with cisplatin, enhances drug's efficacy against lung cancer. Annual Meeting of Am Assoc Cancer Res. 2022, New Orleans.
77. Moholkar, D., Kandimalla, R., **Aqil, F.**, and Gupta R. Biodistribution and tumor targeting of exosomes using mouse models. Annual Meeting of Am Assoc Cancer Res. 2022, New Orleans.
78. **Aqil, F.**, Kandimalla, R., Tyagi, N., Saeed, M., and Gupta, R. Celastrol targets multiple pathways and suppress cell invasion in lung cancer growth and metastasis. Annual Meeting of Am Assoc Cancer Res. 2022, New Orleans. Abstract # 22-A-3480-AACR.
79. Kandimalla, R., **Aqil, F.** Moholkar, D., Samantha, S.K., and Gupta R. Mahanine, a carbazole alkaloid attenuates lung cancer progression. Annual Meeting of Am Assoc Cancer Res. 2022, New Orleans.
80. **Aqil, F.**, Kandimalla, R., Saxena, D., Wallen, M., Moholkar, D., Jeyabalan, J., Spencer, W., Gabbard, JD., Palmer, KE., Gupta, R. Plant polyphenolics as potential antiviral candidates against SARS-CoV-2. Annual Conference of International Society of Extracellular Vesicles, 2022, Lyon, France.
81. ***Aqil, F.**, Tyagi, N., Kandimalla, R., Saeed, M., Almatroudi, A., Gupta, R. Exosomal delivery of celastrol for lung cancer management. Annual Conference of International Society of Extracellular Vesicles, 2022, Lyon, France.
82. **Aqil, F.**, Wallen, M., Jeyabalan, J., Kandimalla, R., Moholkar, D., Spencer, W., Gupta, R. Extracellular vesicle-based nano 'platform' technology for RNA and DNA delivery. ISEVxTECH - EV Technology & Methods Summit. Nov 15-18, 2022, Hawaii, USA.
83. Gupta, R., Jeyabalan, J., Wallen, M., Kandimalla, R., Moholkar, D., Spencer, W., **Aqil, F.*** Isolation of small extracellular vesicles from bovine colostrum powder using a

- combination of techniques. ISEVxTECH - EV Technology & Methods Summit. Nov 15-18, 2022, Hawaii, USA.
84. Gupta, R., Wallen, M., Kandimalla, R., Jeyabalan, J., Moholkar, D.N., Spencer, W. and **Aqil, F.** Targeted exosomal delivery of NRF2 siRNA against lung cancer. Annual Meeting of International Society for Extracellular Vesicles, 2023, Seattle, USA, May 17-21, 2023. *J. Extracellular Vesicles*. 12(S1), 321, 2023.
 85. Moholkar, D.N., Kandimalla, R., Jeyabalan, J., Gupta, R., and **Aqil, F.** Exosomal cannabidiol: A promising candidate for targeted oral delivery against breast cancer. Annual Meeting of International Society for Extracellular Vesicles, Seattle, USA, May 17-21, 2023. *J. Extracellular Vesicles*. 12(S1), 131, 2023.
 86. Kandimalla, R., Moholkar, D.N., Jeyabalan, J., Yan, J., Song, Z., **Aqil, F.**, and Gupta, R. Targeted oral exosomal delivery of cannabidiol for lung cancer. Annual Meeting of International Society for Extracellular Vesicles, 2023, Seattle, USA, May 17-21, 2023. *J. Extracellular Vesicles*. 12(S1), 321, 2023.
 87. Kandimalla, R., Moholkar, D.N., Wallen. M, Ding, C., Gupta, R and **Aqil. F.** Engineered Exosomes for the Delivery of PD-L1 siRNA for Lung Cancer Immunotherapy. Accepted for publication in Annual Meeting of AACR, 2024, San Diego, USA, April 5-10, 2024.
 88. Moholkar, D.N., Kandimalla, R., Wallen. M, Jeyabalan, J., Spencer, W., **Aqil. F.** and Gupta, R. Exosome-mediated delivery of RNA and DNA: Enhanced efficiency with polycationic PEI-PEG. Accepted for publication in Annual Meeting of AACR, 2024, San Diego, USA, April 5-10, 2024.
 89. Kandimalla, R., Wallen, M., Jeyabalan, J., Moholkar, D.N., Wendy, S., Gupta, R. and **Aqil, F.** Exosomes mediated targeting of NRF2 with therapeutic siRNA for treatment of lung cancer. Accepted for publication in Annual Meeting of AACR, 2024, San Diego, USA, April 5-10, 2024.
 90. Gupta, R., Kandimalla, R., Moholkar, D.N., Wallen. M., Jeyabalan, J., Spencer, W., Tyagi, N., and **Aqil, F.** Exosome-delivered curcuminoids to target the brain: Modulation of key markers of Alzheimer's disease (AD). Abstract accepted for presentation in ISEV 2024, Melbourne Australia, May 08-12, 2024.
 91. **Aqil, F.**, Kandimalla, R., Moholkar, D.N., Wallen. M, Ding, C., and Gupta, R. Advancements in Lung Cancer Immunotherapy using Engineered Exosome to deliver PD-L1 siRNA. Abstract accepted for presentation in ISEV 2024, Melbourne Australia, May 08-12, 2024.

Poster Presentations: Local/Regional Meetings

1. Munagala, R., **Aqil, F.**, Jeyabalan, J., Vadhanam, M.V., and Gupta, R.C. (2010). Increased anti-tumor activity by novel systemic delivery and molecular targets of Tanshinone II A. 9th BCC Retreat, Louisville (**Awarded IInd Prize**).
2. Ravoori, S. Vadhanam, M.V. **Aqil, F.**, Jeyabalan, J. and Gupta, R.C. (2010). Distinct molecular targets of blueberry and black raspberry in breast cancer prevention. 9th BCC Retreat, Louisville (**Awarded IIIrd Prize**).

3. Gadre, S., **Aqil, F.** and Gupta, R.C. (2011). Different Molecular Weight Polymers on the Release of Curcumin from Coated Implants. Research Louisville, Univ. of Louisville, Louisville, October 10-14, 2011 (**Awarded IInd Prize**).
4. Munagala, R., Vadhanam, M., Kausar, H., Bansal, S.S., **Aqil, F.**, Jeyabalan, J., Ravoori, S. and Gupta, R.C. (2011). MicroRNA 'signature' during estrogen-mediated mammary carcinogenesis and its reversal by ellagic acid intervention. 10Th BCC Retreat, Louisville. October 28, 2011. R.
5. Siow, RJ., **Aqil, F.**, Munagala, R. and Gupta, RC. (2012). Sustainable delivery of chemopreventives by biodegradable polymeric implants. Research Louisville, Univ. of Louisville, Louisville, September 18-21, 2012 (**Fourth Place**).
6. Kendall, **Aqil, F.**, Gupta, RC and Munagala, R. (2014). Biomarker Significance of Exosomes in the Initiation and Progression of Breast Cancer. Research Louisville, Univ. of Louisville, Louisville, September 16-19, 2014 (**Second Place**).
7. Kyakulaga, AH, **Aqil, F.**, and Gupta R. Synergistic anticancer activity of withaferin A and paclitaxel on against human lung cancer cells. Research Louisville, Univ. of Louisville, Louisville, October 27-30, 2015.
8. Aqil, F., Jeyabalan, J., Munagala, R. Agrawal, AK., Parker, L. and Gupta, RC. Exosomes as nanocarriers for the treatment of ovarian cancer. Research Louisville, Univ. of Louisville, Louisville, October 11-14, 2016.
9. Kyakulaga, AH, **Aqil, F.**, Munagala, R. and Gupta R. Withaferin A alone and in Combination with Paclitaxel Inhibits TGF- β 1 Induced Epithelial-to-Mesenchymal Transition, Invasion and Metastasis of Lung Cancer *in vitro*. Research Louisville, Univ. of Louisville, Louisville, October 11-14, 2016 (**Best Paper Award**).
10. Agrawal, AK., **Aqil, F.**, Jeyabalan, J., Munagala, R., Spencer, WA., Beck, J., Gachuki, BW., Alhakeem, SS., Oben, K., Bondada, S. and Gupta R. Paclitaxel Loaded, Milk-Derived Exosomal Formulation Enhances Therapeutic Efficacy and Reduces Toxicity Following Oral Administration. Research Louisville, Univ. of Louisville, Louisville, October 11-14, 2016.
11. Moholkar, D.N., Kandimalla, R., **Aqil, F.**, Jeyabalan, J., Yan, J., Song, Z.H., Gupta, RC. Targeted oral delivery of exosomal formulation of cannabidiol (CBD) against lung cancer. Research Louisville, Univ. of Louisville, Louisville, September 19-23, 2022.
12. Moholkar, D., Kandimalla, R., **Aqil, F.**, Gupta R. Exosomal Cannabidiol: A promising candidate for targeted oral delivery against breast cancer. Brown Cancer Center Retreat, Louisville, KY during 15th September 2023.
13. **Aqil, F.**, Wallen, M., Jeyabalan, J., Kandimalla, R., Moholkar, D., Spencer, W., Gupta, RC. Exosome-mediated nano 'platform' for delivery of RNA and DNA. Brown Cancer Center Retreat, Louisville, KY during 15th September 2023.
14. Kandimalla, R., Moholkar, D.N., Jeyabalan, J., Yan, J., Song, Z., **Aqil, F.**, Gupta, R. Targeted oral exosomal delivery of cannabidiol (CBD) for lung cancer. Brown Cancer Center Retreat held on September 15th, 2023.

15. Kandimalla, R., Wallen, M., Jeyabalan, J., Moholkar, D., **Aqil, F.**, Gupta, R. Colostrum exosomes for siRNA delivery against lung cancer. Research Louisville, Louisville, KY during 2-6 October 2023.
16. Moholkar, D., Kandimalla, R., **Aqil, F.**, Gupta R. Exosomal Cannabidiol: A promising candidate for targeted oral delivery against breast cancer. Research Louisville, Louisville, KY during 2-6 October 2023. (**Awarded IIIrd Prize**).
17. Tyagi, P., Moholkar, D., Kandimalla, R., and **Aqil, F.** Natural Compounds in Cancer Prevention: Antioxidant and Antiproliferative Activities. Research Louisville, Louisville, KY during 2-6 October 2023.

Peer-reviewed articles

1. **Aqil, F.**, Beg, A.Z. and Ahmad, I. In-vitro toxicity of plant essential oils against soil fungi. JMAPS. 22: 177-181, 2000.
2. Ahmad, I., **Aqil, F.** and Shafiullah. Antibacterial and antifungal properties of crude alcoholic extract and fractions of Lawsonia inermis. JMAPS: 364-369, 2003.
3. **Aqil, F.**, Farooq S. and Ahmad I. Broad spectrum antimicrobial activity of certain ingredients of plant essential oils. JMAPS: 360-363, 2003.
4. Ahmad I, **Aqil, F.** and Srivastava, P.K. Antibacterial and antifungal properties of Cichorium intybus root extracts. Univ. J. Phytochem & Ayur. Heights, 1: 23-30, 2003.
5. Ahmad, I. Khan, M.S.A. and Aqil, F. Plasmid encoded antibiotic resistance and β -lactamase production among enteric bacteria isolated from hospital wastewater. Indian Vet. Med. J, 29, 05, 2003.
6. **Aqil, F.** and Ahmad, I. Broad-spectrum antibacterial and antifungal properties of certain Indian medicinal plants. World J. Microbiol. Biotech. 19:653-657, 2003.
7. Ahmad I. Beg AZ and **Aqil, F.** In-vitro interaction among different bioactive plant extracts and with certain antibiotics against multi-drug resistant Staphylococcus aureus. Hamdard Med. XLVIII (2): 48-56, 2005.
8. **Aqil, F.**, Khan MSA, Owais M. and Ahmad I. Effect of certain bioactive plant extracts on clinical isolates of β -lactamase producing methicillin resistant Staphylococcus aureus. J. Basic Microbiol. 45: 106-114, 2005. PMID: 15812867
9. Ahmad, F., Ahmad, I., **Aqil, F.**, Wani, A.A. and Sousche, Y.S. Plant growth promoting potential of free-living diazotrophs and other rhizobacteria isolated from Northern Indian soil. Biotech. J. 1 (10): 1112-1123, 2006. PMID: 17004301
10. Ahmad, I., Ansari, M.I., and **Aqil, F.** Biosorption of Ni, Cr and Cd by metal tolerant Aspergillus niger and Penicillium sp. using single and multi-metal solution. Indian J. Exp. Biol. 44: 73-76, 2006. PMID: 16430095
11. **Aqil, F.**, Ahmad I, Khan, M.S.A., and Ahmad, S. Multi-drug resistance and β -lactamase production among clinical isolates of staphylococci. J Trop Microbiol Biotechnol, 2: 18-23, 2006.

12. **Aqil, F.**, Ahmad, I. and Mehmood, Z. Antioxidant properties of some traditionally used Indian medicinal plants. Turk J. Biol 30: 177-183, 2006.
13. **Aqil, F.** Ahmad, I. and Owais, M. Evaluation of anti-methicillin resistant Staphylococcus aureus (MRSA) activity and synergy of some bioactive plant extracts. Biotech. J. 1 (10): 1093-1102, 2006. PMID: 17004300
14. Zafar S, **Aqil, F.** and Ahmad, I. Metal tolerance and biosorption potential of filamentous fungi isolated from metal contaminated agricultural soil. Biores. Technol. 98(13): 2557-61, 2007. PMID: 17113284
15. Ahmad, I. and **Aqil, F.** *In vitro* efficacy of bioactive extracts of 15 medicinal plants against ES β L producing multi drug resistant enteric bacteria. Microbiol Res 162: 264-75, 2007. PMID: 16875811
16. **Aqil, F.** and Ahmad, I. Antibacterial properties of traditionally used Indian medicinal plants. Meth. Find. Exp. Clin Pharmacol. 29 (2): 79-92, 2007. PMID: 17440624
17. Ahmad I, Zahin M, **Aqil, F.**, Hasan S, Khan MSA, Owais M. Bioactive compounds from Punica granatum, Curcuma longa and Zingiber officinale and their therapeutic potential. Drugs of the Future, 33(4): 329-346, 2008. (Review)
18. **Aqil, F.**, Zahin M, and Ahmad I. Antimutagenic activity of methanolic extract of four ayurvedic medicinal plants. Indian J. Exp. Biol. 46(9): 668-672, 2008. PMID: 18949897
19. Zahin, M., **Aqil, F.** and Ahmad, I. The *in vitro* antioxidant activity and total phenolic content of four Indian medicinal plants. Int. J. Pharm. Pharmaceut. Sci. 1: 88-95, 2009.
20. Zahin M, Ahmad I, and **Aqil, F.** Antioxidant and antimutagenic activity of *Carum copticum* fruit extracts. Toxicol. *in vitro*. 24(4):1243-9, 2010. PMID: 20149861
21. Zahin, M., Hasan, S., **Aqil, F.**, Khan, M.S.A., Husain, F.M. and Ahmad, I. Screening of Indian medicinal plants for their Anti-quorum sensing activity. Indian J. Exp. Biol. 48: 1219-1224, 2010. PMID: 21250604
22. Zahin M., **Aqil, F.** and Ahmad I. Broad spectrum antimutagenic activity of antioxidant active fraction of Punica granatum L. peel extracts. Mutat. Res.- Genetic Toxicol & Environ Mutagen, 703: 99-107, 2010. PMID: 20708098
23. Munagala, R., **Aqil, F.** and Gupta, R.C. Promising Molecular Targeted Therapies in Breast Cancer. Indian Journal of Pharmacology 43: 236-245, 2011. (Featured on the Cover of the Journal). PMID: 21713084. (Review)
24. **Aqil, F.**, Zahin, M, El-Sayed, K.A., Ahmad, I., Orabi, K.Y., and Arif, J.M. Antimicrobial, antioxidant, and antimutagenic activities of selected marine natural products and tobacco cembranoids. Drug Chem Toxicol. 34: 167-179, 2011. PMID: 21314466
25. Bansal S, Kausar H, **Aqil F.**, Jeyabalan J, Vadhanam MV, Gupta RC and Ravoori S. Curcumin implants for continuous systemic delivery: safety and bio-compatibility. Drug Deliv Transl Res. 4: 332-341, 2011. PMID: 25788367

26. Bansal, S., Goel, M., **Aqil, F.**, Vadhanam, MV. And Gupta, R.C. Advanced Drug-Delivery Systems of Curcumin for Cancer Chemoprevention. *Cancer Prevention Research*. 4: 1158-1171, 2011. PMID: 21546540 (Review)
27. Vadhanam, M.V., Ravoori, S., **Aqil, F.**, and Gupta, R.C. Chemoprevention of mammary carcinogenesis by sustained systemic delivery of ellagic acid. *European Journal of Cancer Prevention*. 20: 484-891, 2011. PMID: 21768881.
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Book Chapters

1. **Aqil, F.**, Ahmad, I., and Owais, M. Targeted screening of bioactive plant extracts and phytocompounds against problematic groups of Multidrug resistant bacteria. In Ahmad, I., Aqil, F., and Owais, M. (Eds.); *Modern Phytomedicine*, Wiley VCH, Germany, 2006, 177-197.
2. Musarrat, J., **Aqil, F.**, and Ahmad I. Mutagenicity and antimutagenicity of medicinal plants. In Ahmad, I., **Aqil, F.**, and Owais, M. (Eds.); *Modern Phytomedicine*, Wiley VCH, Germany, 2006, pp. 271-292.
3. Ahmad I, **Aqil, F.**, Ahmad, F., and Owais, M. Herbal Medicines: Prospects and constraints. In Ahmad, I., **Aqil, F.**, and Owais, M. (Eds.); *Modern Phytomedicine*, Wiley VCH, Germany, 2006, pp. 59-77.
4. Ahmad F, Ahmad I, **Aqil, F.**, Khan MS and Hayat S. Diversity and potential of nonsymbiotic diazotrophic bacteria in promoting plant growth. Ahmad, I., Pichtel, J., and Hayat, S. (Eds). *Plant Bacteria Interaction: Concept and technology for promoting plant growth*. Wiley VCH, Germany, 2007, pp. 81-109.
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8. **Aqil, F.**, Zahin M, Ahmad I, Hussain FM, Khan MSA, Bansal SS and Farooq, S. Antifungal Compounds from Medicinal plants and Herbal Drugs: Prospects and limitations. In Ahmad,

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 11. Ahmad I, Khan, MSA., **Aqil, F.**, and Singh, M.: Microbial applications in agriculture and the environment: A broad perspective. In Ahmad, I., Ahmad, F., and Pitchel, J. (Eds.); Microbes and Microbial Technology: Agricultural and environmental Applications, Springer, 2010, pp. 1-26.
 12. **Aqil, F.**, Munagala, R., Jeyabalan, J., Joshi, T., Singh, I.P. and Gupta R. The Indian Blackberry ('Jamun'), antioxidant capacity and cancer protection. In Preedy, V.R. (Eds); Oxidative stress and dietary antioxidants. 2014 London, 101-113.
 13. **Aqil, F.**, Munagala, R., Agrawal, A., and Gupta R. Anticancer Phytocompounds: Experimental and Clinical Updates. In Khan, Ahmad & Chattopadhyay (Eds) New Look to Phytomedicine. Elsevier, 2019, The Netherland, pp. 237-272.
 14. Husain, A., Nasibullah, M., **Aqil, F.**, and Khan, A.R.: Industrial aspects of water-based metal-organic frameworks. In Azim, Rather, Bhawani & Bhatt (Eds) Synthesis of Metal-Organic Frameworks via Water-Based Routes: A Green and Sustainable Approach. Elsevier, 2023, New York, USA, pp. 303-3012.
 15. Shoaib, A., Azmi, L., Ahmad, S., Tasleem, M., Siddiqui, S., Saeed, M., and Aqil, F., Bacterial Toxins in the Management of Colon Cancer: Current Perspective in A. Moneim Elhadi Sulieman, N. I. Alshammari (eds.), Microbial Toxins in Food Systems: Causes, Mechanisms, Complications, and Metabolism. Springer Nature Switzerland AG 2024.

Books published

1. Editor: Ahmad, I., **F. Aqil.**, and Owais M. (Eds): Modern Phytomedicine: Turning Medicinal Plants into Drugs. Publisher: Wiley-VCH, Germany, Hardcover, 404 pages ISBN-10: 3527315306; ISBN-13: 978-3527315307.
(Owned by more than 175 libraries across the world).
2. Editor: Ahmad, I., and **Aqil, F.** (Eds): New Strategies combating bacterial infections. Publisher: Wiley-Blackwell, Germany, Hardcover, 322 pages ISBN-10: 352732206; ISBN-13: 978-3527322060.
(Owned by more than 111 libraries across the world).

3. Editor: Ahmad, I., Owais M., Shahid, M., and **Aqil, F.** (Eds): Combating Fungal Infections: Problems and Remedy. Springer-Verlag GmbH, Germany, 2010, 505 pages. ISBN-10: 3642121721, ISBN-13: 978-3642121722.
(Owned by more than 322 libraries across the world).
4. Author: **Aqil, F.**, and Ahmad, I. Biological activities of certain Indian medicinal plant: extracts with therapeutic potential. LAP Lambert Academic Publishing, Germany, 2010, 256 pages. ISBN 978-3-8383-4069.

WORKSHOP/ TRAINING ATTENDED

1. Participated in a short-term course on Biotechnology and Biochemical Engineering organized by NITTTR, Chandigarh from 20. 11. 2006 to 24.11.2006.
2. CIMAP Training School on Advanced Instrumentation and Analytical Techniques for Natural Products (AIAT - 2005) from 6th- 11th June 2005 at CIMAP, Lucknow.
3. DBT funded workshop on "Bioinformatics tools in biological sciences" from March 09-10, 2004 at Interdisciplinary Biotechnology Unit, AMU, Aligarh.
4. Pfizer sponsored Investigator Training Program Workshop on principle of ICH-GCP. University of Louisville, Louisville, KY., March 30, 2012.
5. Completed Training course on Good Clinical Practice for Clinical Trials with Investigational Drugs and Medical Devices (U.S. FDA Focus), Sep, 2023