




INSTITUTE OF HOME ECONOMICS
UNIVERSITY OF DELHI



Name	DR TARUNA ARORA	Photograph
Designation	ASSISTANT PROFESSOR	
E-mail	taruna.arora@ihe.du.ac.in	
Educational Qualifications: MSc (Biotechnology) Banaras Hindu University, PhD (Biochemistry) Delhi University		
Teaching experience: 14 years 6 months		
Subjects/Papers Taught Human Physiology, Metabolism of carbohydrates and Lipids, Metabolism of amino acids and nucleotides, Biochemistry of hormones, biomolecules, Techniques in Biochemistry, tools and techniques in Biochemistry, Biophysics, molecular biology, Enzymes, intermediary metabolism, nutritional Biochemistry, Proteins and Enzymes, advance methodologies, Biochemical techniques		
Awards received <ol style="list-style-type: none">1. Passed National Eligibility Test (NET) of University Grants Commission (UGC) for the award of predoctoral fellowship (JRF) as well as eligibility for lecturer ship in life Sciences in Dec'91 as well as May'92.2. Passed National Eligibility Test (NET) conducted by Indian Council of Agricultural Research (ICAR), Pusa, New Delhi for the eligibility for lecturer as well as assistant professor in biotechnology (Animal Sciences) in agricultural universities in India in 1993.3. Passed GATE examination conducted by the Indian Institute of Technology (IIT) in Life Sciences with a percentile score of 88.92% in 1992.		
Research Interest/Specialization : Biochemical endocrinology		
ORCID No.		
0000-0002-6917-6392		
Research Projects		
Title	Funding agency/organization	Duration of Project
“Biochemical and Immunological Investigations on Pregnant Mare Serum Gonadotropin”	UGC post-doctoral fellowship women	1 year

“Structure–Function Relationship In Buffalo Pituitary Thyrotropin Hormone Family”	DST WOS-A	3 years
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Research papers since 2010 (APA format)

1. Meenakshi Vachher, Savita Bansal, Bhupender Kumar, Sandeep Yadav, **Taruna Arora**, Nalini MozaWali and Archana Burman. Contribution of organokines in the development of NAFLD/NASH associated hepatocellular carcinoma. (July 2022, Journal of Cellular Biochemistry) ISSN 1097-4644 Online IF- 4.48
2. Taneja, J., **Arora T.**, Jain, A., Mansukhani, C., Bhalla, L., Nanda, S. (2020). Polycystic ovary syndrome risk: efficacy of self-assessment test. *Int J Reprod Contracept Obstet Gynecol.* 9:2915-20.
3. Marothia,M., Goyal,D., Arora, T., Bhatia, R. (2017). Comparative evaluation of antibacterial, antifungal and antioxidant activity of silver nanoparticles synthesized using *Cassia tora l* leaf extract and glucose. *International Journal of Recent Research Aspects*, 4(2), 149-154.
4. Kumari, N., Arora, T., Basu Modak, S., Muralidhar, K. (2015). A critical review of gonadotropic activity of pregnant mare serum gonadotropin in *Asian Journal of Science and Technology*, 6 (10) , 1933-1940
5. Tyagi, N., Hossain, M.S., Arora, T., Muralidhar, K. (2015). Comparison of an in- house elisa kit with a commercially available kit for the measurement of pregnant mare serum gonadotropin (PMSG) in *International Journal of Bioassays* 4.10 , 4431-4435
6. Vashistha, N., Dighe, R., **Arora, T.**, Kumari, N., Muralidhar, K. (2014). Cloning and Expression of Biologically Active Buffalo Thyroid Stimulating Hormone (Butsh) in Methylotropic Yeast *Pichia pastoris* in *Austin Journal of Biotechnology & Bioengineering*, 1(4): 9.
7. Vashistha,N., **Arora, T.**, Nath, R., Muralidhar, K. (2012). A simple method for isolation of three reproductive hormones together from the same batch of freshly frozen buffalo pituitaries collected from abattoirs in *Novus International Journal of Pharmaceutical Technology*, 1(2): 9-17.
8. **Arora, T.**, Patel, P., Muralidhar, K. (2012). Assessment of pseudo affinity chromatography using textile dyes for isolation of buffalo pituitary luteinizing hormone *International Scholarly Research Network;ISRN Chromatography Article ID 639514*, 1-8
9. **Arora, T.**, Nath, R., Vashistha,N., Kumari, N., Hussain, S.S., Muralidhar K. (2012). Mechanistic investigations of the dual activity of Gonadotropins using target tissue cAMP level as a response parameter in *World J Life Sci. and Medical Research*, 2(4):150-158.(ISSN 1082-6076)
10. Chaudhary, R., **Arora, T.**, Vashistha, N., Gera, S., Muralidhar K. (2012). Interaction between Cibacron blue F3GA and Luteinizing Hormone: a Chromatographic investigation in *IOSR Journal of Pharmacy*, 2(2) , 242-256.
11. Gautam, J., **Arora, T.**, (2011). Biotechnology in the agricultural perspective, *Sci. & Cult.* 77 (5–6) 213-216.
12. Garg, S., Rathi, B., Attri, P., Tyagi, Y., Sharma, V., **Arora, T.**, Rambabu, Singh, R.P., Kumar, R. (2011). Antioxidant and Anti-bacterial Evaluation of Substituted Thiols Synthesized by A Kinetically Fast, Economic and Environment friendly Approach in *Journal of Pharmacy Research* ,4(1),171-174.
13. Vashistha, N., **Arora, T.**, Muralidhar K.(2010). Characterisation of a Reference Preparation of Indian Water Buffalo Pituitary Glycoprotein Reproductive Hormones. In *ENDOCRINE REVIEWS*, 31(3)P2-314.
14. **Arora, T.**, Vashistha, N., Chaudhary, R., Muralidhar K. (2010). Pseudo affinity chromatographic approach to probe structural heterogeneity in buffalo pituitary Luteinizing Hormone: Probable pseudo lectin like behavior of immobilized Cibacron blue F3GA in *Journal of Chromatography (B)*, 878, 2679-2684

15. **Arora, T.**, Vashistha, N., Muralidhar K.(2010). Journal of Liquid Chromatography & Related Technologies, 33(5);680-692 ; Chromatographic separation of Thyroid stimulating hormone from Luteinizing hormone (Impact factor 1.2). (ISSN 1082-6076)
16. Garg, S., Sharma, V., Attri, P., Rath, B., **Arora, T.** (2010). Biological evaluation of *N*-Aryl and *N*-Alkyl Piperazine Derivatives Synthesized by a Kinetically Fast, Economic and Environment Friendly Ionic Liquid Triethylammonium Tetrafluoroborate [Et₃NH] [BF₄] in Journal of Pharmacy Research, 3(9), 2280-2283.
17. Hussain, S.S., **Arora, T.**, Chaturvedi, M.M., Basu-Modak, S., Chaudhary, R., Muralidhar K. (2019); Regulation of Ascorbic acid by gonadotropins in rat Ovary; BIORXIV PREPRINT ; **doi:** <https://doi.org/10.1101/665752>

Books published/edited

Book chapters published/edited

1. Taneja, J., **Arora T.**, Jain, A., Mansukhani, C., Bhalla, L., Nanda, S. (2021). Study on Polycystic Ovary Syndrome Risk: Efficacy of Self-Assessment Test; Chapter 11, Print ISBN: 978-93-91473-77-8, eBook ISBN: 978-93-91473-78-5
2. Iqbal, j., Behl, G., Walker, G., Edin, C., Kumar, P., O'Reilly, N., Bhatia, R., Fitzhenry, L., **Arora T.** (2019). Nanoparticulate Drug Delivery Systems for the Oral Administration of Macromolecular Drugs; Nanoparticles in Pharmacotherapy | Recent progress of nanoparticles in pharmacotherapy; Edited by Alexandru Mihai Grumezescu, Chapter-6, 147-193, Elsevier Inc USA; <https://doi.org/10.1016/B978-0-12-816504-1>
3. **Arora T.** (2014). E-Content writing for FYUP, Discipline Courses in Institute of Lifelong learning, University of Delhi for Botany a chapter entitled 'Introduction to amino acids, peptides and proteins'. (ISSN 2349-154X)
4. **Arora T.** (2014). E-Content writing for FYUP, Discipline Courses in Institute of Lifelong learning, University of Delhi for Botany a chapter entitled 'Disaccharides and Polysaccharides'. (ISSN 2349-154X)
5. **Arora T.** (2014). E-Content writing for FYUP, Discipline Courses in Institute of Lifelong learning, University of Delhi for Botany a chapter entitled 'Bioenergetics'. (ISSN 2349-154X)

Popular articles:

1. Shireen, S., Mukkawat, V., Bhatia, R., **Arora T.** (2017). CRISPR-Cas 9- A tool to make world better! in [www.biokaryon.com/CRISPR-Cas 9- A tool to make world better/](http://www.biokaryon.com/CRISPR-Cas-9-A-tool-to-make-world-better/)
2. Mukkawat, V., Shireen, S., Bhatia, R., **Arora T.** (2017). Next Generation Sequencing- An Upcoming Innovation!! in [www.biokaryon.com/ Next Generation Sequencing- An Upcoming Innovation/](http://www.biokaryon.com/Next-Generation-Sequencing-An-Upcoming-Innovation/)

Association with Professional Societies

Any other

Short course/FDP/Workshop

1. Participated in a five day online national hands-on workshop on "*Moodle: An Online Learning Management System*" from July 01-05, 2020 organized by Department of Biochemistry, Institute of Home Economics, University of Delhi.

2. Participated in Online Faculty Development Programme on “*Online teaching-Learning Practices: Challenges and Solutions*” (Sponsored by DBT Star College Scheme Ministry of Science and Technology, GOI), from July 07-13, 2020 organized by Department of Mathematics and Computer Science, SGTBKC, Sri Anandpur Sahib, Punjab.
3. Participated and successfully completed one week online UGC Paramarsh Faculty Development Programme on “*ICT in Teaching and Evaluation*” from July 13-18, 2020 organized by MSP Mandal’s Shri Shivaji College, Parbhani (MS), India.
4. Participated and successfully completed a one week online short term Faculty Development Programme on “*Implementation of Information and Communication Technology in Teaching*” from July 18-24, 2020 organized by School of Legal Studies, Cochin University of Science and Technology in collaboration with The Kerala State Higher Education Council.
5. Participated and successfully completed webinar series (Basic) on “*Transforming Teaching Learning Process using ICT Tools*” from July 23-25, 2020 organized by IQAC, PGDAV College, University of Delhi.
6. Participated and successfully completed one week online short term Faculty Development Programme on “*Towards a Digital Era of Teaching and Learning*” which was delivered as MOOC with four quadrants from Aug 12-18, 2020 organized by UGC-HRDC, University of Kerala, Thiruvananthapuram in collaboration with KSMDDB College, Sasthamcotta.
7. Participated in a Faculty Development Programme on “*Online teaching using Google classroom and Google meet*” on Aug 22, 2020 organized by Website and Automation Committee & Department of Microbiology, Institute of Home Economics, University of Delhi.
8. Participated and successfully completed a one week online Faculty Development Programme on “*Biosafety, Bioethics and IPR*” which from Aug 24-28, 2020 organized by the Department of Microbiology, Ram Lal Anand College under the DBT Star College Scheme.
9. Participated and successfully completed UGC (Paramarsh) Online One Week Faculty Development Programme on “*E-Content Development*” from Aug 31-Sept 05, 2020 organized by MSP Mandal’s Shri Shivaji College, Parbhani, Maharashtra.
10. Participated in a “*Science Leadership Workshop*” from June 22-28, 2020 organized by Central University of Punjab, Bathinda, India.
11. Participated in Online Faculty Development Programme on “*Online Teaching-Learning Practices: Challenges and Solutions*” (Sponsored by DBT Star College Scheme Ministry of Science and Technology, GOI), from July 07-13, 2020 organized by Department of Mathematics and Computer Science, SGTBKC, Sri Anandpur Sahib, Punjab.
12. Participated and successfully completed one week online short term Faculty Development Programme on “*Pedagogical and e-learning tools for teaching*” which was delivered in asynchronous mode as MOOC with four quadrants from Aug 4-10, 2020 organized by Sanatana Dharma College, Alappuzha in collaboration with Kerala State Higher Education council.
13. Participated and successfully completed one week online short term Faculty Development Programme on “*ICT tools for teaching-learning process-post pandemic educational strategies*” which was delivered in asynchronous mode as MOOC with four quadrants from Aug 17-23, 2020 organized by Sree Narayana College, Kollam in collaboration with Kerala State Higher Education council.
14. Participated in the 3 day online workshop on Mathematica for beginners held on 17-19th august, 2020 organized by Department of Applied sciences, Chitkara University, Punjab
15. Attended 3 days International e-Workshop on “*Docking, QSAR and Molecular Dynamics*” jointly organized by Department of Biotechnology, Ramaiah Institute of Technology and Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India in association with IEEE-EMB MSRIT student chapter and SRIGEN-Society of Biotechnologists from 29 to 31 July 2020.

16. Participated in a 10 day online symposium on Thought-experimentation in humanities, science and science fiction held on 21-30 July, 2020 and organized by Shri muktanand college, gangapur, aurangabad.
17. Completed an online Short term course for teachers on “Graphic Design” organized by St Mary’s College (Autonomous) with the Department of Biotechnology, Government of India from 31st May- 5th June, 2021.
18. Attended a Short term course on “Curriculum Development, Research and Publication Ethics” organized by Department of English and Other Foreign Languages, SRM Institute of Science and Technology, Chennai from 02-09th Aug, 2021
19. Attended a Three-day workshop on ‘soft skills development’, organized by J. M. Patel arts, commerce & science college, bhandara and m.s.p. mandal’s shri shivaji college, parbhani, from 3-5 february,2022
20. Attended a 2 weeks hands on workshop on “Next Generation Bioinformatics Approaches In Infection Biology” organized by Department of Biotechnology Jaypee Institute of Information Technology, Noida, from 4 th April to 15 th April 2022
21. Attended a national level faculty development programme on the topic “Data analysis with statistical package for the social sciences” organized by seshadripuram academy of business studies (affiliated to bangalore university) , from april 27,2022 to may 06,2022

others

- Mentored Students of Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi for various inhouse projects More than 20 posters were presented in various conferences as an outcome of this work.
- Supervised and assisted several students pursuing their B Sc, MSc, and BE degrees with their projects and dissertation in Delhi college of Engineering and Department of Zoology, Delhi University. Organized and participated as a resource person in several technical workshops. Students of Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi, BSc (Hons) Biochemistry Semester V, presented posters in various conferences under my mentorship.
- Have been a part of various college committees like admission, timetable, literary and debating, cultural, library, internal assessment, etc in the Institute of Home Economics, University of Delhi.
- organised the two days international webinar on “Bioinformatics (concepts and applications)” in the Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi from 18 to 19 September 2020.
- Participated as a speaker and organized an outreach program on “Basic understanding of Biosciences” for the students of class 11 and 12 in the Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi on January 20,2021.
- Organized the workshop on primer designing and In-Silico PCR in the Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi on 15 March,2020.
- Organized the webinar on “ Masters Abroad- Global Opportunities For Career Growth” in the Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi on 5 April, 2020.
- Actively involved in organizing a workshop on Moodle: an online learning management system with Dr. Avneesh Mittal and Dr. Nityanand Agasti as the resource persons in the Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi from July 1-5, 2020
- Actively involved in organizing a series of Webinars during the lockdown period to strengthen the teaching-learning process on 24th April, 27th April, 28th April, and 1st May in the Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi.
- Organized a lecture on “Oxidative Stress: Effect on Protein Folding ” by Dr Pankaj Attri, Associate Professor, Center of Plasma Nano-interface Engineering, Kyushu University, Fukuoka, Japan on

28th February 2020 in Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi.

- Organized and participated as a speaker on the topics “ Diabetes-a metabolic disorder” and “Endocrine and Metabolic characteristics in polycystic ovarian syndrome (PCOS)” in a lecture series on “Understanding lifestyle disorders: A biochemical perspective” held at Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on 12th February’ 2020.
- Actively involved in organizing of lecture on “Prognostic and Therapeutic Relevance of Cysteine Cathepsins in Myeloid Leukemia” by Professor Shyam S Chauhan, Head, Department of Biotechnology, All India Institute of Medical Sciences (AIIMS), New Delhi, on 26th September 2019.
- Actively involved in organizing a lecture on “Nanobiotechnology: Drug delivery for cancer” by Dr. Anita Verma Karma, Coordinator , DBT Star college Scheme, Nanobiotech lab, Associate Professor, Kirori Mal College, University of Delhi on 13th September, 2019.
- Organized and conducted a technical session on DNA UV spectrum, a one day outreach programme organized for school students on “Unravelling the mystery of DNA” on 19th August 2019.
- Chaired a technical session in International Conference on Public health: issues, challenges, opportunities, prevention, awareness being organized by Daulat Ram College, University of Delhi, Delhi and Krishi Sanskriti, New Delhi on 16th January 2016
- Organized and participated as a speaker on the topics “ Vaccine potency testing “ and “Immunotoxicity” in a symposium entitled “*Replacing regulatory experiments on animals*” organized by Institute of Home Economics and PETA India held at Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on 26-27 October 2017
- Organized and participated as a resource person in a technical workshop “PCR & ELISA” held at Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on 7th April 2017 and 7th February’ 2019 .
- Organized and participated as a speaker in a National workshop “*Introduction to Clinical Biochemistry*” held at Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on 1-2 September 2016, 12-13 September 2017, 24th-25th January’ 2019
- Actively involved in the organization of the Plenary lecture and a technical workshop on 29th January, 2016 in Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi. Professor Muralidhar, Emeritus Professor and J C Bose National Fellow from South Asian University delivered a plenary lecture on “Nature of Biology Education, research and career”. Also a Technical workshop was organized on the topic “computer aided drug designing and Autodocking” for BSc (Hons) Biochemistry Semester V students.
- Actively involved in the organization of a second series of technical workshops on 29th February 2016 in the Department of Biochemistry, Institute of Home Economics, University of Delhi, Delhi. Two Technical workshops were conducted on the topics “Protein structure and sequence database” for BSc (Hons) Biochemistry Semester II students and “computer-aided drug designing and Auto-docking (part II)” for BSc (Hons) Biochemistry Semester V students.
- Actively involved in the organization of the International Workshop on “ Emerging role of Vitamin D in human health” Co-organized by Institute of Home Economics, National Institute of Nutrition, Hyderabad and Sitaram Bhartia Institute of Science and Research being held at Delhi University Conference Centre, North Campus, University of Delhi on October 04-05, 2011.
- Worked as a councilor for IGNOU for MSc (DFSM) for Nutritional Biochemistry since December’15 for conducting theory, practical, and assignment assessments.
- Actively involved in the organization of the Oration day lecture being presented by Dr. Abdul Kalam Azad as a part of the golden jubilee celebration of Institute of Home Economics, University of Delhi, being held in Siri Fort auditorium on November 2, 2011

