Dr. Rahul Shankar Tade

(M. Pharm, Ph.D.)

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Dr. Rahul S. Tade

Date of Birth:

8th September 1992

Present Address: Plot No. 23, Samarth Nagar- Mandal Shiwar, Shirpur, 425 405, Dist. Dhule, Maharashtra (India)

Permanent Address: 74/A, Shirsoli P. B.- 425002, Tal./Dist. Jalgaon, Maharashtra (India).

Career Objectives:

To contribute in the field of research and academia for the global promotion and innovation of health sciences with honesty, dedication, and responsibility towards society. To excel in my area of interest by taking up challenging assignments to promote organisation as well as self-development.

General Profile:

- ❖ Problem-solving and opportunity seeking attitude
- ❖ Skilful task arrangement and coordination
- ❖ Adaptability and well communication
- ❖ Independent and team-oriented work attitude.

Professional Position held and Academic/Research Experience:

- Assistant Professor and P. G. Teacher in Pharmaceutics (KBC North Maharashtra University, Jalgaon) at H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur, since August 2021.
- Junior/Senior Research Fellow (From 2018-21), on DST-SERB Sponsored Project.
- Assistant Professor, (B.Pharm) (2016-2018).
- Lecturer (D.Pharm), (2016-17).

Courses/Subject Taught:

- Industrial Pharmacy – I & II (B. Pharmacy)
- Biopharmaceutics (B. Pharmacy)
- Pharmaceutical Product Development (M. Pharmacy)
- Hazards and Safety Management (M. Pharmacy)

Educational Details:

Qualification/Exam	Board/University/ Institute	Year/Duration
Ph.D.	KBC NMU, Jalgaon	2018 - 2022
Senior Research Fellow (DST-SERB Project)	HRPIPER, Shirpur	2018 - 2021
M. Pharmacy (Pharmaceutics)	KBC NMU, Jalgaon	2014 - 2016

	Graduate Pharmacy Aptitude Test (GPAT)	All India Council For Technical Education	2014
	Gujarat State Forensic Science University, Gandhinagar, (Entrance Test)	Forensic Science University, Gandhinagar, Gujarat	2014
	NIPER	National Institute of Pharmaceutical Education and Research	2014
	B. Pharmacy	KBC NMU, Jalgaon	2010 - 2014

Academic Portfolio/Committee Handled Till date:

- **National Board of Accreditation (NBA):** Criterion 8.6, Entrepreneurship design
- **National Assessment and Accreditation Council (NAAC):** Research, Innovations and Extension, Criterion: 3.2, 3.3, 3.4 (3.4.1-2-3-4).
- **Alumni Committee:** As a member of the alumni council, cordially arranged 24 Alumni interaction lectures till date.
- **Guest Lecture & Seminar Committee:** Arranged 42 Guest lectures/seminars in the last 3 years.
- **Avishkar Co-ordinator**: Research festival in KBC NMU, Motivated students for the poster presentation. Guided student for the State level and University level Avishkar 2018 and 2021-23.
- **Final Year Project Work In-charge:** Set new guidelines and approaches for project work for research outcome based results.

Research Experience:

- **Ph.D. Awarded on 22 December 2022:**
  Thesis Title: "*Development of Nanoprobe for Cancer Sensing Application"*, at KBC NMU, Jalgaon.
- **Junior/Senior Research Fellow (From 2018-21):**
  DST-SERB [ECR/2017/000905] Sponsored Project, "*Functionalized fluorescent graphene quantum dot-based sensor for early detection of lung cancer and bioimaging*", at HRPIPER, Shirpur. PI- Dr. Pravin O. Patil.
- **M. Pharmacy Dissertation Work:**
  Thesis Title: "*Preparation and Characterization of Magnetic Cellulose Fiber Nanocomposites for Efficient Delivery of Nystatin*". 2016.

Research Awards & Honours

- **Received 1st Prize in PD Patil National Award;** for Best Thesis in Pharmaceutical Sciences -2023 in Ph.D. category.
- **Received DST - Science and Engineering Research Board (SERB-ANRF)** sponsored **Start-up Research Grant (SRG)** of **26,71,372/-** Rupees, for research project entitled, "*Chemoresistance sensitized 2D nanoplatform for guided tumor theranostics in triple negative breast cancer*", File no ***SRG/2023/000538/LS***.
- **Received BS Council of Education and Research** - **Research Innovation** grant of **21,000/-** rupees, For Cancer Based Research and Outreach program.

Guest Lecture Delivered:	• Delivered an invited expert on, "*PCOS and PCOD: Emerging health problems in your women".* NSS camp Lauki, Shirpur. • Delivered an invited expert talk on, "*Literature Review in Research & Research/Review Paper Drafting*", at SSJIPER, Jamner, Jalgaon. • Delivered invited talk on, "*Understanding the Basics of Spectroscopy" at Ahinsa Institute of Pharmacy*, Dondaicha, Dhule.
Community services:	➢ Free book fair contest ➢ Library donations in Hometown
Research Outcomes/ Publications Details: **Total Publications:** 47 **Book Chapters:** 07 **Cumulative Impact Factor:** 87.7 **Citations:** 760 **h-Index:** 15 **i10-Index:** 18 **ORCID ID:** 0000-0002-1242-5407 **Patents (Published):** 1. Application no: 202121003033, Applicant: Rahul S. Tade, Sopan N. Nangare, Pravin O. Patil, Sanjay B. Bari. "*Graphene quantum dot biosensor, method of preparing same and uses thereof*". 2. Application no: 202121003034, Applicant: Sopan N. Nangare, Rahul S. Tade, Pravin O. Patil, Sanjay B. Bari. "*Graphene oxide nanocomposite biosensor, method of preparing same and uses thereof*".	**Key Research Publications:** 1. MP More, SR Pardeshi, RS Tade, PD Meshram, JB Naik, PK Deshmukh *Development of an Analytical Quality by Design RP-HPLC Method and Its Validation for Estimation of Gefitinib From Bulk, Tablet Dosage Form.* ***Journal of AOAC International***, qsae033, ***(Impact Factor: 1.9).*** 2. Tade R.S. Patil P.O., *Functionalized Graphene Quantum Dots (GQDs) based Label-Free Optical Fluorescence Sensor for CD59 Antigen Detection and Cellular Bioimaging.* ***Journal of Fluorescence-Springer. (Impact Factor: 2.7).*** 3. Tade R.S. Patil P.O., *Fabrication of Poly (aspartic) acid functionalized graphene quantum dots based fabrication of FRET-based sensor for sensitive and selective detection of MAGE-A11 antigen.* ***Microchemical Journal - Elsevier*** **(Impact Factor: 5.3)** 4. Tade R.S. Patil P.O., *Biofabricated functionalized graphene quantum dots (fGQDs): unravelling its fluorescence sensing mechanism of human telomerase reverse transcriptase (hTERT) antigen and in vitro bioimaging application.* ***Biomedical Materials IOP,*** 2022, 17, 055010. **(Impact Factor: 3.71)** 5. Tade R.S. Patil P.O., *Fabrication of Poly-L-lysine functionalized graphene quantum dots (PLL-GQDs) for label-free fluorescent-based detection of CEA,* ***ACS Biomaterials Science & Engineering,*** 2022, 8, 2, 470–483 **(Impact Factor: 4.74)** 6. Nangare SN, Dugam SS, Patil PO, Tade R.S. Jadhav N. *Silk industry waste protein: Isolation, purification and fabrication of electrospun silk protein nanofibers as a possible nanocarrier for floating drug delivery. IOP Nanotechnology.* Oct 2020, 32(3):035101. **(Impact Factor: 3.87)** 7. Tade R.S. Patil P.O. *Green synthesis of fluorescent graphene quantum dots and its application in selective curcumin detection.* ***Current Applied Physics*** *- Elsevier.* Nov 2020, 1;20(11):1226-36. (Impact Factor: 2.48) 8. Tade R.S. Nangare S.N. Patil P.O., Agro-industrial waste-mediated green synthesis of silver nanoparticles and evaluation of its antibacterial activity*.* ***Nano Biomedicine & Engineering*** 12 (1), 57-66. [**Web of Science**]

Thrust Area of Research:

- ✓ Cancer Theranostics
- ✓ Advanced Nano-Materials
- ✓ Biosensing Development
- ✓ Biopolymer/Nanocomposites
- ✓ Artificial Intelligence

Professional Memberships:

1. **PharmaFocus Asia Magazine**
2. **Association of Pharmacy Profession (APTI)**
3. **BS Council for Education & Research- Pune**
4. **Review team-member of:**

- ✓ International Journal of Research and Analytical Reviews," ID: 113549, Since: July-2018.
- ✓ Elsevier
- ✓ Acta Scientific Pharmacology Review Board, Since Feb. 2020.
- ✓ Invited Reviewer: Food and Chemical Toxicology.
- ✓ Invited Reviewer: Nano-BioMedicine & Engineering.

9. Tade R.S. Chatap VK, Patil P.O., *One-pot in situ synthesis of eco-friendly cellulose magnetic nanocomposite (Cf-MNCs) for dye adsorption application*. ***IOP Functional Composites and Structures***, 3 (1), 015001. (**Impact Factor**: 2.8)
10. Tade R.S. More MP, Chatap VK, Patil P.O, Deshmukh PK. *Fabrication and in vitro drug release characteristics of magnetic nanocellulose fiber composites for efficient delivery of nystatin*. ***IOP Materials Research Express***. 2018, 12;5(11):116102. (**Impact Factor: 1.4**).

Key Review Publications :

1. S.R. Baddam, S. Ganta, S. Nalla, C. Banoth, R.S. Tade*., Polymeric Nanomaterials-Based Theranostic Platforms for Triple-Negative Breast Cancer (TNBC) Treatment. ***International Journal of Pharmaceutics - Elsevier,*** (**Impact Factor: 5.8**) **IJPHARM-D-24-01457**
2. Tade R.S*. M.P. More., *Emerging Application of Graphene Quantum Dots in Photodynamic/Photothermal and Hyperthermia Therapies for Cancer Treatment*. ***Nano Biomedicine & Engineering***, 17 (3). [**Web of Science**]
3. Tade R.S*., et al. *Artificial Intelligence in the Paradigm Shift of Pharmaceutical Sciences: A Review*, ***Nano Biomedicine & Engineering***, 16 (1). [**Web of Science**]
4. Kuna K, Baddam SR, Kalagara S, Akkiraju PC, Tade R.S, Enaganti S., Emerging natural polymer-based architectured nanotherapeutics for the treatment of cancer, ***International Journal of Biological Macromolecules - Elsevier,*** 129434. (**Impact Factor: 8.2**)
5. Tade R.S. Nangare SN, Patil A.G. Pandey A. Deshmukh PK. Dilip R Patil, More MP. Patil PO., Recent advancement in bio-precursor derived graphene quantum dots: synthesis, characterization and toxicological perspective. ***IOP Nanotechnology***. Apr 2020, 28;31(29):292001. (**Impact Factor: 3.87**)
6. Tade R.S. Nangare S. N. More M. P. Patil P.O., Graphene quantum dots (GQDs) Nanoarchitectonics for theranostic application in lung cancer, ***Journal of Drug Targeting, Taylor & Francis,*** 1-18, 2021. (**Impact Factor: 5.12**)
7. Tade R.S. Patil PO., Theranostic prospective of graphene quantum dots (GQDs) in breast cancer. ***ACS Biomaterials Science & Engineering***. Oct 2020, 27;6(11):5987-6008. **(Impact Factor: 4.74)**
8. Patil PO, Pandey GR, Tade R.S. Nangare SN, Graphene-based nanocomposites for sensitivity enhancement of surface plasmon resonance sensor for biological and chemical sensing: A review. ***Biosensors and Bioelectronics***. 2019 Aug 15; 139: 111324. (**Impact Factor**: 9.5)

	9. Tade R.S*. Nangare SN, Patil PO, Fundamental aspects of graphene and its biosensing applications. ***Functional Composites and Structures***. Jan 2021, 3:(2021) 012001. (**Impact Factor**: **2.8**) 10. Nangare S.N. Sangale P.M. Patil AG. Tade R.S. Deshmukh P.K. Bari SB. Patil P.O., Surface Architectured metal organic frameworks-based biosensor for ultrasensitive detection of uric acid: Recent advancement and future perspectives. ***Microchemical Journal***, 169:106567, 2021. **(Impact Factor: 4.82)** 11. SN Nangare, SR Patil, AG Patil, ZG Khan, PK Deshmukh, Tade R.S., Structural design of nanosize-metal–organic framework-based sensors for detection of organophosphorus pesticides in food and water samples: current challenges and future prospects, ***Journal of Nanostructure in Chemistry,*** 1-36. (**Impact Factor: 6.39**) 12. Tade R.S*. Nangare S. N. A. G. Patil P. O., Historical dilemmas of coronavirus disease (COVID-19): Public health emergency, management perspectives and global impacts. ***International Journal of Nursing Education and Research,*** 9(3), 2021. (Peer Reviewed) 13. Z.G. Khan, Minal Patil, Sopan N. Nangare, Sai HS. Boddu, R. S. Tade, Pravin O. Patil., Surface nanoarchitectured metal-organic frameworks based sensor for reduced glutathione sensing: A review, 1-36, 2021, *Journal of Nanostructure in Chemistry*, (**Impact Factor: 6.39**). 14. Tade R.S. More MP, Chatap VK, Deshmukh PK, Patil PO. Safety and toxicity assessment of parabens in pharmaceutical and food products. ***Inventi Rapid: Pharmacy Practice***. 2018;3:1-9.
Book Chapters:	1. Authored a Book Chapter entitled, "An Overview of Artificial Intelligence (AI) In Drug Delivery and Development" Ref. ID: BMS-AIDDPS-2024-HT1-5753-1, Apple Academic Press- **Taylor & Francis**. (Upcoming) 2. Authored a Book Chapter entitled, "*The Emergence of Artificial Intelligence (AI) in Pharmaceutical and Biomedical Sciences*", **Hard ISBN:** 9781998511068. Chapter No. 18, Apple Academic Press- **Taylor & Francis** (Upcoming). 1. Authored a Book Chapter entitled 'Polymer based nanoplatform for breast cancer targeting; in "*Polymeric nanoparticles for treatment of solid tumors*", **Springer**. 2. Contributed to Book Chapter entitled 'Passive and active targeting approaches for solid tumors: Progress till date and associated challenge', in "*Polymeric nanoparticles for treatment of solid* tumors", **Springer.**

	3. Contributed to Book Chapter entitled 'Nanotherapeutics for Glioblastoma treatment; in "*Advances in Biomedical Nanoscience,* **Elsevier**. 4. Contributed to Book Chapter, "Pharmacokinetics of Drug-in-Polymer Matrix-Based Nanoparticulate Drug Delivery System", *Pharmacokinetics and Pharmacodynamics of Nanoparticulate Drug Delivery*, ***Springer***, 159-186. 5. Contributed to Book Chapter entitled 'Nanoarchitectured polymeric nanoplatforms targeted treatment of prostate cancer; in "*Polymeric nanoparticles for treatment of solid tumors*", **Springer.** 6. Contributed to Book Chapter Entitled, "Antibody-Mediated Diagnosis of Biomolecules". In *Nanobiosensors for Biomolecular Targeting* 2019 Jan 1 (pp. 165-193). ***Elsevier.***
Conference/Workshop/FDP Attended	- One-day *National Conference* on *"Nanomaterials, industrial polymers and eco-friendly coatings-perspectives and challenges* "at NMU, Jalgaon, 2013. - Attended Two Days *International Conference* and Poster Presented at the RSC Symposium on "*Frontiers of Advances in Chemistry and Technologies"* Held on 11-12 Dec.2015 at NMU, Jalgaon. - One Day *National Conference* on *"Innovative Concepts and Methodologies in Pharmaceutical Research"* held on 4th March 2015 at HRPIPER, Shirpur. - Attended Two Days *International Conference* on *"Artificial Intelligence in Healthcare System"* Held at NMIMS, Shirpur on Dec.27-28/2016. - Attended One Day *National Conference* on *"Innovative Concepts and Methodologies in Pharmaceutical Research- 3rd"* held on 10th March 2018 at HRPIPER, Shirpur. - Poster Presented in *TWO Day National Conference*, organized by R.C. Patel Institute of Pharmaceutical Education and Research, Shirpur on the topic, "Need-based research and developments in the pharmaceutical field for serving society", on 24th and 25th Nov. 2019. - Paper presented at 5th *International Conference on Bioenergy, Environment and Sustainable Technologies* (BEST2021), January 29th – 30th, 021, organized by Arunai Engineering College, Tiruvannamalai, Tamilnadu, (online mode). - Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "*Novel Materials*" from 04/01/2021 to 08/01/2021 at Malaviya National Institute of Technology, Jaipur.

	✔ Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "*Sustainability Engineering*" from 18/01/2022 to 22/01/2022 at Savitribai Phule Pune University.
Computer and Software Handling Proficiency:	❖ **Basic software:** Microsoft Office, Photoshop, Adobe Illustrator, ❖ **AI Tools & Data Curation:** ChatGPT, Dall-E, Midjourney, etc. ❖ **Data modelling and representation software's:** Origin™, BIOVIA-Materials Studio, FluorTools (ale), E-Draw, SigmaPlot, ImageJ, Biorender, ChemSketch, etc. ❖ **Paper drafting and referencing/citations software's:** EndNote, Mendeley, Zotero, Citavi™, etc.
Instrument Handling Proficiency:	#**Analytical Instruments:** UV-Spectrophotometer, FT-IR, Spectrofluorometer, Particle Sizer, etc. #**Other Instruments:** Microwave Synthesizer, BET Analyzer, Tablet Machin, Rota-evaporatore, Hydrothermal Autoclave, etc.

I hereby declare that the above information given by me is correct and complete to the best of my knowledge and belief.

Sincerely,

Dr. Rahul Shankar Tade