Personal information

Radha Tomar, Ph.D.
ORCID: orcid.org/0000-0002-2439-7589
Date of birth: 10-Jan-1993
Nationality: INDIAN

Education

2016 –2023 **Ph.D.**

Chemical Sciences Department

IISER Mohali, Punjab, India.

Supervisor: Prof. S. Arulananda Babu

Thesis title: Studies on the β-C(sp^3)-H functionalization toward the synthesis of β-arylated unnatural amino acid derivatives.

2013 –2015 **M.Sc.** (Organic Chemistry)

Chemistry Department

CCS University, Uttar Pradesh, India.

Working Positions

2023-Present **Post-doctoral Research.**

University of Bordeaux, (IECB/CBMN), France

Fellowships and awards

2023-2026 - Advanced Manufacturing Research Fellowship Programme (ADAGIO) under the Marie Sklodowska-Curie grant.

2018-2021 - Senior research fellowship by council of scientific and industrial research (CSIR) Govt of India.

2016-2018 - Junior research fellowship by council of scientific and industrial research (CSIR), Govt of India.

2021 - Best Oral Presentation Award in online national conference on organic chemistry at the NITT Organic Chemistry Conference '21 (NITTOCC-21).

2015 - Qualified National Eligibility Test (CSIR-JRF-2015 with **All India Rank 54**).

2016 - Qualified Graduate Aptitude Test in Engineering (GATE-2016).

2015 - Awarded with **Ch. Budh Singh Memorial Gold medal** in M.Sc. (Chemistry) by Department of Chemistry, Janta Vedic College (Affiliated with CCS University).

2015 - Awarded with **Dr. (Smt.) Chandra Singh Memorial Gold medal** in M.Sc. (Organic Chemistry) by Department of Chemistry, Janta Vedic College (Affiliated with CCS University).

Research Publications

(1) **Tomar, Radha**;† Suwasia, Sonam;† Roychoudhury, Angshuman; Venkataramani, Sugumar;* Babu, Srinivasarao Arulananda.* **Title:** Azobenzene-based Unnatural Amino Acid Scaffolds *via* Pd(II)-catalyzed C(sp^3)-H Arylation Strategy. *Chem. Commun.,* **2022**, *58,* 12967-12970.

(2) **Tomar, Radha.**; Bhattacharya, Debabrata; Babu, Srinivasarao Arulananda.* **Title:** Direct Lactamization of *β*-Arylated *δ*-Aminopentanoic Acid Carboxamides: En Route to 4-Aryl- 2-Piperidones, Piperidines, Antituberculosis Molecule Q203 (*Telacebec*) and its Analogues. *Asian J. Org. Chem*. **2022**, *11*, e202100736.

(3) **Tomar, Radha.**; Bhattacharya, Debabrata; Babu, Srinivasarao Arulananda.* **Title:** Assembling of Medium/Long Chain-Based *β*-Arylated Unnatural Amino Acid Derivatives *via* the Pd(II)-Catalyzed sp^3 *β*-C-H Arylation and a Short Route for Rolipram-Type Derivatives. *Tetrahedron* **2019**, *75*, 2447-2465.

(4) **Tomar, Radha.**; Kumar, Amit; Dalal, Arup; Bhattacharya, Debabrata; Singh, Prabhakar; Babu, Srinivasarao Arulananda.* **Title:** Expanding the Utility of Inexpensive Pyridine-*N*-oxide Directing Group for the Site-Selective sp^2/sp^3 *γ*-C-H and sp^2 *δ*-C-H Functionalization of Carboxamides. *Asian J. Org. Chem*. **2022**, *11*, e202200311. (**Selected in VIP category**)

(5) Bhattacharya, Debabrata; **Tomar, Radha;** Babu, Srinivasarao Arulananda.* **Title:** Conversion of 2,3-Dihydrobenzo[*b*][1,4]dioxine-2-carboxamides to 3-Oxoquinolin 2(1*H*)-ones *via* Ring-Opening and Formal 6-*endo*-trig Cyclization-Involved Heck Reactions. *Asian J. Org. Chem*. **2020**, *9*, 829-839.

(6) Bisht, N.; Babu, S. A.;* **Tomar, R.** **Title:** Pd(II)-Catalyzed, Bidentate Directing Group-aided Alkylation of sp^3*γ*-C-H Bonds: Access to 3-Alkylated Thiophene/Furan and Benzothiophene/Benzofuran Motifs. *Asian J. Org. Chem*. **2020**, *9*, 1225-1233.

(7) Bisht, N.; Babu, S. A.;* **Tomar, R.** **Title:** Utility of 4-amino-2,1,3-benzothiadiazole Directing Group in the Pd(II)-catalyzed Arylation of *γ*-C-H bonds of Carboxamides and *β*-C-H Bonds of Amino Acid Carboxamides. *Asian J. Org. Chem*. **2022**, *11*, e202200589.

(8) Babu, S. A.*; Aggarwal, Y.; Patel, P.; **Tomar, R. Title** - Diastereoselective Palladium-Catalyzed Functionalization of Prochiral C(sp^3)-H Bonds of Aliphatic and Alicyclic Compounds. *Chem. Commun*. **2022**, *58*, 2612. (Review Article)

(9) Babu, S. A.*; Padmavathi, R.; Suwasia, S.; Dalal, A.; Bhattacharya, D.; Singh, P.; **Tomar, R. Title** - Recent Developments on the Synthesis of Functionalized Carbohydrate/Sugar Derivatives Involving the Transition Metal-Catalyzed C-H Activation / C-H Functionalization. *Stud. Nat. Prod. Chem*. **2021**, *71*, 311. (Book chapter)

Teaching activities

2017-2018– Laboratory Teaching Assistant in IISER Mohali

Scientific outreach activities

2021 - Oral Presentation entitled *"Assembling of 4-Aryl-2-piperidone, 4-Arylpiperidine Scaffolds and Antituberculosis Molecule via Pd(II)-Catalyzed sp^3 β-C-H Activation/Arylation*", is presented in online national conference on organic chemistry at the NITT Organic Chemistry Conference '21 (NITTOCC) held at NIT Trichy, Tamil Nadu, India. (16th to 18th December, 2021) (Best Oral Presentation Award)

2022 - Poster Presentation entitled *"Direct Lactamization of β-Arylated δ-Aminopentanoic Acid Carboxamides: Synthesis of 4-Aryl-2-piperidones, Piperidines, and Antituberculosis Molecule Q203 (Telacebec)*", is presented in INST-IISERM 1st bilateral meeting 2022 held at INST Mohali, India. (14th to 15th March, 2022)

2022 - Participated in 2nd CRIKC Symposium (RABMC-2022) held at NIPER Mohali, Punjab, India. (19th November, 2022)

2022 - Participated in 29th CRSI-National Symposium in Chemistry held at IISER Mohali, India. (7th to 9th July, 2022)

2021 - Participated in 27th CRSI-National Symposium in Chemistry held at IISER Kolkata, India. (26th to 29th September, 2021)

2019 - Participated in 1st CRIKC Symposium (CCS 2019) held at IISER Mohali, Punjab, India. (2nd & 3rd November, 2019)

2019 - Participated in RAOBC, 2019 held at IISER Mohali Punjab, India. (22nd-24th March, 2019)