Publications

1. Sharma, Nitin Kumar, Yasmeena Ashraf, **Ekta Srivastava**, Vatsalya Gupta, Ramkrishna Sarkar, Ashok Kumar, and Animangsu Ghatak. "Castor oil and maleic acid-derived elastomers: towards the bio-derived, biocompatible, degradable alternative of the conventional elastomer." *Journal of Polymer Research* 33, no. 6 (2026): 240.
2. Bormon, Rakhi, **Ekta Srivastava**, Deepshikha Tewari, Ashok Kumar, and Sandeep Verma. "3D Cryogel Composites of Modified Purine Derivative as Osteoinductive Agents for Bone Pathologies." *ChemBioChem* 27, no. 1 (2026): e202500775.
3. **Srivastava, Ekta,** Irfan Qayoom, and Ashok Kumar. "Reduced Graphene Oxide-Substituted Nanohydroxyapatite: Rejuvenating Bone–Nerve Crosstalk with Electrical Cues in a Fragility Fracture Rat Model under Hyperglycemia." ACS Applied Materials & Interfaces 16, no. 44 (2024): 59738-59751.
4. Bhowmick, Tanima, Pamela Saha, **Ekta Srivastava**, Ashok Kumar, and Animangsu Ghatak. "Self-healing property of a gel-elastomer two-phase composite material." Materialia 35 (2024): 102129.
5. Qayoom, Irfan, Abhay Prasad, **Ekta Srivastava**, Khalid Majid Fazili, Andreas K. Nussler, and Ashok Kumar. "Organic-inorganic composite of polypropylene fumarate and nanohydroxyapatite as carrier of antibiotics for the treatment of bone infections." Biomaterials Advances 157 (2024): 213714.
6. Bormon, Rakhi, **Ekta Srivastava**, Rafat Ali, Prerna Singh, Ashok Kumar, and Sandeep Verma. "Anti-proliferative, -migratory and-clonogenic effects of long-lasting nitric oxide release in HepG2 cells." Chemical Communications 60, no. 26 (2024): 3527-3530.
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8. **Srivastava, Ekta**, Irfan Qayoom, Anamika Singh, and Ashok Kumar. "A reduced graphene oxide functionalized electrospun nerve wrap: Amalgamating electrical and biochemical cues to enhance nerve regeneration in median nerve injury model." Carbon 213 (2023): 118226.
9. Qayoom, Irfan, **Ekta Srivastava**, and Ashok Kumar. "Anti-infective composite cryogel scaffold treats osteomyelitis and augments bone healing in rat femoral condyle." Biomaterials Advances 142 (2022): 213133.
10. **Srivastava, Ekta**, Anamika Singh, and Ashok Kumar. "Spinal cord regeneration: A brief overview of the present scenario and a sneak peek into the future." Biotechnology Journal 16, no. 9 (2021): 2100167.
11. Singh, Anamika, Parvaiz Ahmad Shiekh, Irfan Qayoom, **Ekta Srivastava**, and Ashok Kumar. "Evaluation of polymeric aligned NGCs and exosomes in nerve injury models in diabetic peripheral neuropathy condition." European Polymer Journal 146 (2021): 110256.

Manuscript under review

1. 2,6,9-Trisubstituted Purine Derivative: A novel osteogenic agent stimulating transdifferentiation of myoblast cells and pre-osteoblast cells into new bone cells Rakhi Bormon, **Ekta Srivastava**, Deepshikha Tiwari, Ashok Kumar, and Sandeep Verma, RSC Medicinal Chemistry, 2026
2. Electrically conducting aligned cryogels for spinal cord regeneration **Ekta Srivastava**, Abhishek Dash and Ashok Kumar, Biomaterials, 2026
3. Green light induced Ruthenium complex based photoredox catalyst Juhi Sayala, **Ekta Srivastava**, Nitin Shukla, Ashok Kumar, Ashish K Patra, Inorganic Chemistry, 2026
4. Synthesis of biocompatible polymer based biocomposite and fabrication of the model for cranioplasty

Shruti Tripathi, Sazia Sheikh, **Ekta Srivastava**, Bibhas Bhunia, Antrakrate Gupta, Ashok Kumar, Chemical Engineering Journal, 2026

5. Small Molecules Triggering Osteogenic Differentiation of Mesenchymal Stem Cells: Their Application in Bone-related Disorders
   Rakhi Bormon, Akanksha Dohare, **Ekta Srivastav**a, Ashok Kumar and Sandeep Verma

Patents

1. "A process for fabrication of an electrically conductive aligned nanofibrous scaffold" Patent number 466495 (Granted), Date of filing 13/10/2022, Date of grant 07/11/2023
   Inventors: **Ekta Srivastava**, Prof. Ashok Kumar
2. "A nanocomposite material cryogel with enhanced osteopromotive effect for bone tissue engineering" Patent number 536311 (Granted), Date of filing 21/08/2023, Date of grant 30/04/2024
   Inventors: **Ekta Srivastava**, Prof. Ashok Kumar
3. Synthesis Of 2,6,9-Trisubstituted Adenine Derivative and Evaluation of its Osteogenic Potential Application number 202411084515 A (Published), Date of filing 13/10/2022, Date of publication 21/10/2022
   Inventor: Sandeep Verma, Ashok Kumar, Rakhi Bormon, **Ekta Srivastava**

Books/Reports/Chapters/General articles etc.

Qayoom, Irfan, **Ekta Srivastava**, and Ashok Kumar. (2023). Clinically relevant bone diseases and bone fracture animal models. In: Emerging Materials and Technologies for Bone Repair and Regeneration. (Ashok Kumar, Sneha Singh and Prerna Singh, Eds.). Taylor & Francis/CRC Press, Boca Raton, USA