relevance of application, the degradation rate, mechanical strength, and physicochemical properties can be tailored by the alteration of composition. Several techniques are being engaged for the biocomposite fabrication, viz, electrospinning, freeze-drying, microsphere processing, solvent casting-particulate leaching method, and prototyping techniques exhibiting 3D structures and varying porosities (Ding et al., 2016).

In the regeneration of tissues, osteogenic inducing signals, scaffolds, and cultured cells play a pivotal role. Thus, while synthesizing scaffolds, they should be placeable for a longer time at the infection site with low side effects, to improve the efficacy ratio of therapeutic procedure (Kanellakopoulou, 2008; Lepretre, 2009). Scaffolds used in drug delivery should release the drug homogeneously, providing excellent binding affinity of the drug to the scaffold, stability, and precise amount of drug to be delivered (Sokolsky-Papkov et al., 2007; Griffith and Naughton, 2002; Nair and Laurencin, 2006).

Depending on the composition, bioglass bonds well with hard and soft tissues. So they have been trailed in different forms as scaffolds to carry various therapeutic molecules, growth factors, hormones, proteins, and drugs, to be delivered in a controlled and dose-dependent manner. Mesoporous bioglass offers a larger surface area, distinct pore structure being the source of great bioactivity, pores confining the drug for better drug delivery, and efficient release of ions into the surrounding environment (Wu and Chang, 2014).

The bioactivity of mesoporous bioglass is even more improvised by the addition of phosphorous atoms. P_2O_5 seems to work on the structure of the bioglass network. The atoms of phosphorous gets instituted into the silica network as orthophosphates forming small clusters along with divalent Ca ions boosting the bioactivity of glass (Philippart et al., 2017). Two series of mesoporous bioglass doped with Sr^{2+}/Cu^{2+} or Co^{2+} were synthesized with and without P_2 O_5. These multifunctional bioglass exhibited defective mesoporosity, in the absence of phosphorous atom. Orderly mesoporosity and improved interconnectivity were seen in the series containing phosphorous. They entrap the dopant ions preventing them from acting as modifiers.

The bioglass scaffolds were coated with MCM-41-mesoporous submicron spherical silica particles acting as the drug delivery system. The spherical shape and the mesoporous structure increase the specific consistent delivery of the drug. The mesoporous silica particles were synthesized within the bioglass itself. The effect of the coating increased the bioactivity, desirable and consistent drug delivery on a multifunctional scaffold (Boccardi et al., 2015).

The presence of the MCM-41 coating on the scaffold enhanced the scaffold's capacity for drug release compared with the uncoated ones confirming MCM-41 particles to be apt drug carriers.

Bioglass powder filled in polyvinyl alcohol scaffold incorporated with ciprofloxacin was evaluated before and after drug incorporation. The efficiency of the drug carrier and the bioactivity were checked. The drug release kinetics was slowed down due to diffusion of the drug through the swollen matrix