The goal of my work was to introduce the fast pacing field of tissue engineering with focus on bone regeneration. Tissue engineering could be a future alternative to the currently used conventional approaches that suffer from healing failures. Due to increasing demand for bone tissue replacement damaged by degenerative diseases or injuries, many laboratories have attempted to come up with solutions in a form of artificial constructs. In the present light of interest are composite scaffolds

usually made of polymer and ceramic combinations. Their main advantage is that they combine elasticity and tensile strength of a polymer with bioactivity and mechanical hardness of a ceramic, while removing drawbacks of each material.