

ENGINEERING OF BIOMATERIALS

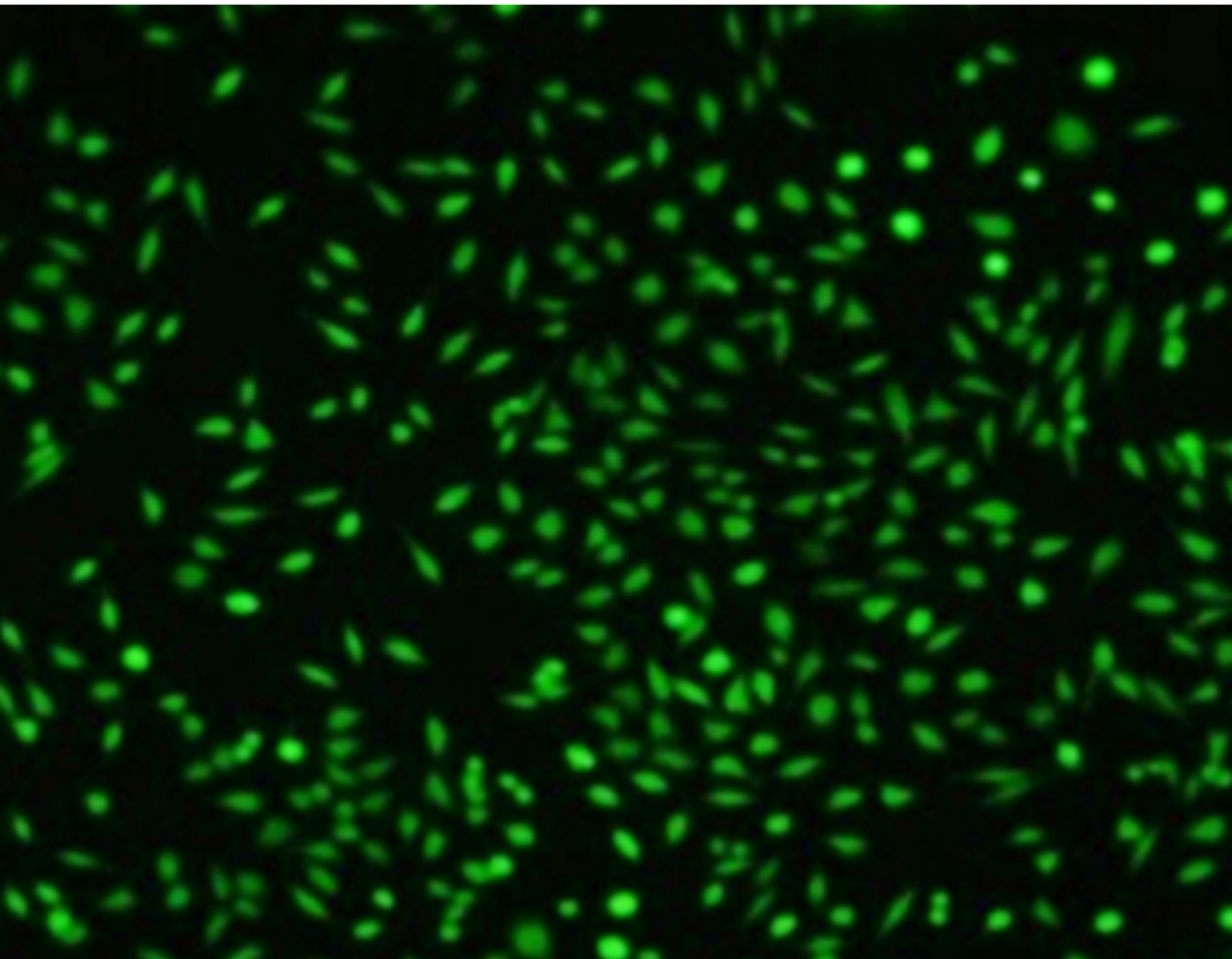
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Tematyka prezentowana w trakcie zajęć obejmuje przegląd wszystkich grup materiałów dla zastosowań medycznych: metalicznych, ceramicznych, polimerowych, węglowych i kompozytowych. Uczestnicy zapoznają się z metodami projektowania i wytwarzania biomateriałów, a następnie możliwościami analizy ich właściwości mechanicznych, właściwości fizykochemicznych (laboratoria z metod badań: elektronowa mikroskopia skaningowa, mikroskopia sił atomowych, spektroskopia w podczerwieni, badania energii powierzchniowej i zwilżalności, badania reologiczne, termiczne, mechaniczne) oraz właściwości biologicznych (badania *in vitro* i *in vivo*). Omawiane są także regulacje prawne i aspekty etyczne związane z badaniami na zwierzętach (norma EU ISO 10993) i badaniami klinicznymi, a także najnowsze osiągnięcia inżynierii tkankowej i nanomedycyny.

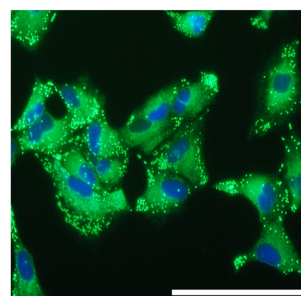
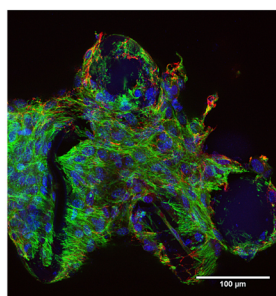
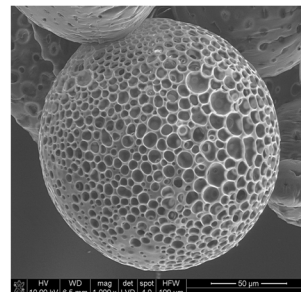
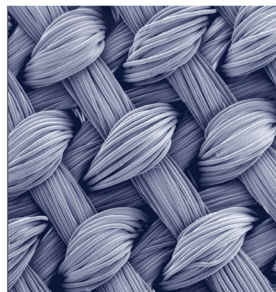
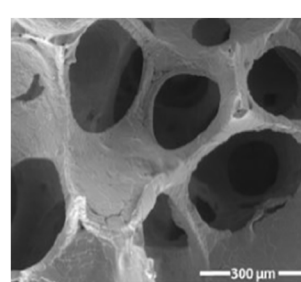
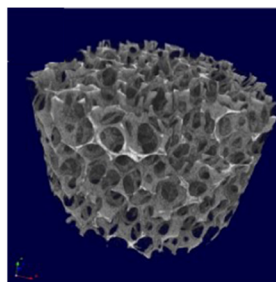
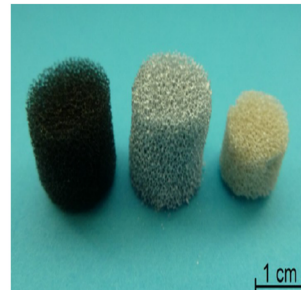
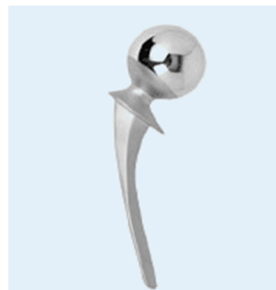
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