[illegible]: Regene a i e medicine; Ti e engine ing; Cell adhe ion; Bioma e ial cience; Deg ada ion kine ic

[illegible]

Ti e and bone engine ing ha e eme ged a an fo ma i e eld i hin egene a i e medicine, aiming o de elo inno a i e a egie fo e ai ing o e lacing damaged i e and bone . Cen al o he cce of i e engine ing a oache i he con in al e ol ion and ad ancemen of bioma e ial , hich e e a ca old o o cell la g o h, di e en ia ion, and l ima el i e egene a ion [1]. In ecen ea , igni can og e ha been made in he de elo men of no el bioma e ial ailo ed eci call fo i e and bone engine ing a lica ion , le e aging ad ancemen in ma e ial cience, bioengine ing, and bio echnolog . T adi ional bioma e ial ch a me al , ce amic , and ol me ha e laid he g o nd o k fo i e engine ing, b limi a ion in biocom a ibili , deg ada ion a e , and mechanical o e ie ha e ed he e lo a ion of no el bioma e ial [2,3]. e e no el bioma e ial encom a a di e e ange of na al, n he ic, and h b id ma e ial , each o e ing ni e ad an age in e m of biocom a ibili , bioac i i , and mechanical o e ie .

[illegible]

Na al bioma e ial , de i ed om biological o ce ch a o ein , ol accha ide , and E acell la Ma i (ECM) com onen , ha e ga ne ed igni can a en ion fo i e engine ing a lica ion d e o hei inhe en biocom a ibili and abili o mimic he na i e i e mic oen i onmen . Ma e ial ch a collagen, gela in, h al onic acid, and chi o an e e a e cellen ca old , o iding c al o and bioac i e c e ha omo e cell la adhe ion, olife a ion, and di e en ia ion. F he mo e, na al bioma e ial can be modi ed o f nc ionali ed o enhance hei egene a i e o en ial, making hem highl e a ile fo a ide ange of i e engine ing a lica ion [4,5].

S n he ic bioma e ial o e com lemen a ad an age , incl ding nable mechanical o e ie , con olled deg ada ion a e , and eci e con ol o e chemical com o i ion and c e. Pol me ch a ol (lac ic-co-gl colic acid) (PLGA), Pol e h lene Gl col (PEG), and Pol ca olac one (PCL) can be enginee ed i h ailo ed o e ie o mee he eci c e i emen of di e en i e . Addi ionall ,

Citation: William K (2024) Novel Biomaterial for Tissue and Bone Engineering y. J Biotechnol Biomater, 14: 369.