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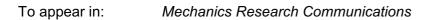
Optimal bone structure is dependent on the interplay between mechanics and cellular activities

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## Highlights

- Simulation of bone tissue optimization for a proximal femur geometry
- Structural optimization is independent of the initial tissue volume fractions
- Significant dependence on loading magnitude and direction
- Biological and cellular influences on the tissue homeostasis
- Bone disorders produce different steady-states with cellular trends corroborated by clinic data

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