NOVEL OSTEOANABOLIC PEPTIDE FOR BONE REGENERATION AND OSTEOPOROSIS TREATMENT

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Technology

The increasing bone fracture and osteoporosis incidence driven by aging populations, high life expectancy and lifestyles are major global public health concerns. Suboptimal efficacy, side effects and high costs of the current treatments have significantly contributed to undertreated or poor adherence to bone fractures and osteoporosis treatments. Our biocompatible and estrogenic novel peptide with superior osteogenic and neuromodulatory properties has the potential to revolutionize bone fracture and osteoporosis treatments

Stage of Development

- **Preclinical:** proof-of-concept, safety, and efficacy in laboratory and animal models established
- **Formulation:** Clinically viable formulation and delivery system development for targeted and sustained release is ongoing.
- **Clinical Trials:** Robust clinical data supporting safety and efficacy and phase I trial soon to begin
- **Regulatory Approval:** FDA approval will be sought
- **Commercialization:** Market launch and post-market surveillance is ongoing

Key Advantages

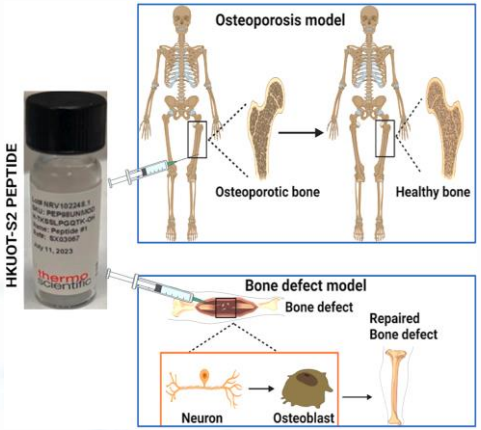
- **Biocompatibility:** Safe and well-tolerated, suitable for long-term use
- **Superior osteogenic properties** compared with rhBMP-2 and estradiol (E2)
- **Dual-Action:** Targets both neurons and osteoblast functions to enhance bone healing and suppress osteoporosis
- **Cost-Effective:** Potentially more affordable than biologics like rhBMP-2

Opportunities

1. Therapeutic: New dual-purpose peptide for bone fracture repairs and osteoporosis treatment

2. Global Markert:

- ***Bone Fracture Treatment Market***: ~$15 billion (2022), growing at 6.5% (2023–2030) compound annual growth rate (CAGR)
- **Osteoporosis Treatment Market:** ~$14 billion (2022), growing at 4.5% CAGR



Target segments

1. Bone fracture patients
2. Osteoporotic patients
3. Aged population

Intellectual Property

CN Patent no.: PCT/CN2023/112211

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