

AXIS 0 FRAMEWORK: 360° TORSIONAL MATRIX, DNA REPAIR, TELOMERE STABILITY, AND AGING REVERSAL

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1. Abstract & Introduction

The Axis 0 Theory redefines biological aging as a systemic structural failure of the **360° Multidimensional Torsional Matrix**. This framework posits that genomic decay (DNA damage and Telomere shortening) is a direct consequence of macro-scale mechanical pressure imbalances. By achieving **Mechanical Transparency**, we can trigger **Phenotype Reversal** and restore genomic integrity.

2. Macro-to-Micro Force Conduction Pathway

Mechanical stress penetrates the biological system through a continuous hierarchical chain:

- Macro (Fascia):** Torsional nodes accumulate residual stress ($\sigma_{residual}$).
- Interface (LINC-SUN):** The mechanical gateway transferring matrix tension into the nucleus.
- Micro (DNA/Telomeres):** Nuclear deformation alters 360° chromatin spatiality, hindering **DNA repair** and accelerating **Telomere** attrition.

3. Quantifying Mechanical Aging

We introduce the **Mechanical Aging Index (R_{age})** to measure the rate of structural decay:

$$R_{age} = \kappa \cdot |\partial \sigma_{LINC} / \partial t|$$

When mechanical stress remains unreleased ($\sigma > 0$), biological aging accelerates exponentially due to nuclear membrane compression.

4. Genomic Rejuvenation Protocol

The Axis 0 Algorithm (T^{-1}):

- DNA Repair:** Decompressing the nucleus shifts chromatin to **Euchromatin**, allowing repair enzymes access to genetic sequences.
- Telomere Stability:** Relieving σ_{LINC} optimizes the intranuclear environment for **Telomerase** activity.
- Phenotype Reversal:** Restoring spherical nuclear morphology reverses age-associated epigenetic markers.

5. Core Formalism (Consolidated Reference)

Conceptual Metric	Mathematical Expression
Absolute Equilibrium (Axis 0)	$\Sigma \vec{F}_{torsion} + \vec{F}_{gravity} + \vec{F}_{pressure} = 0$
Mechanical Impedance (Z)	$Z = \Delta P / V$
Transparency Condition (T _{mech})	$T_{mech} \Leftrightarrow \lim_{t \rightarrow 0} (Torsion_{360^\circ}) = 0$
Conduction Pathway	$\vec{F}_{fascia} \rightarrow \vec{F}_{cytoskeleton} \rightarrow \vec{F}_{LINC/SUN} \Rightarrow \Delta(Nuc)$
Circumferential Balance	$\oint_C \vec{F}_{int} dl = 0$

References:

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