

simbios NIH Center for Biomedical Computation Physics-based Simulation of Biological Structures

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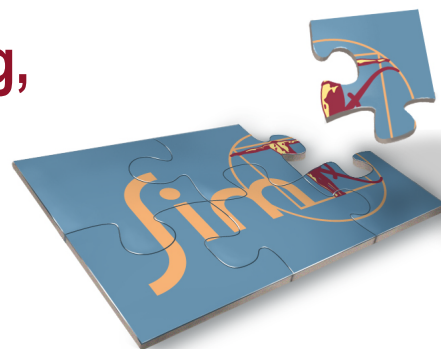
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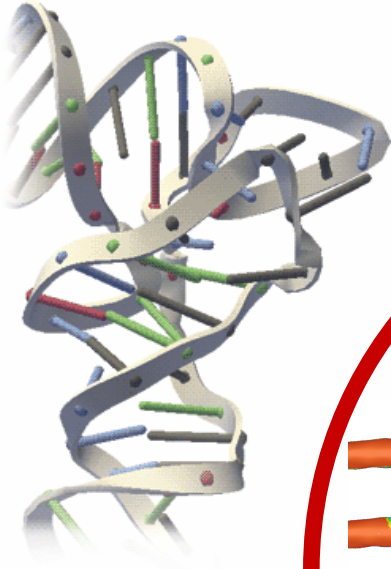


NIH Roadmap Grant U54 GM072970

RNA regulates genes which affect cells, cancers, and autoimmune diseases.

See how Simbios is making fundamental discoveries about the structure and function of RNA.

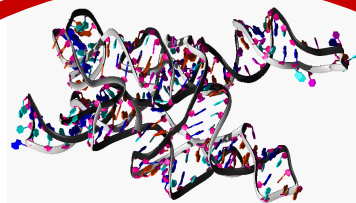
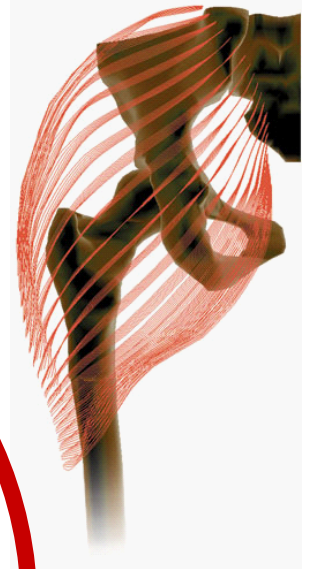
PI: Russ Altman & Dan Herschlag



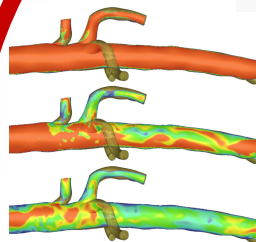
Neuromuscular biomechanics seeks to help people with cerebral palsy, Parkinson disease, birth defects, and spinal cord injuries.

See how Simbios is affecting physical therapies, orthotics, and surgeries.

PI: Scott Delp

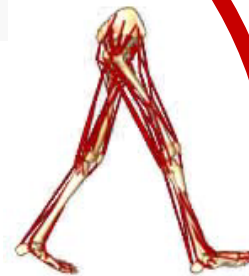


RNA Folding

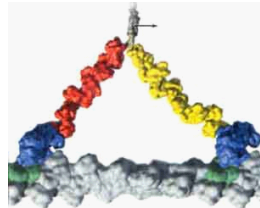


Cardiovascular Dynamics

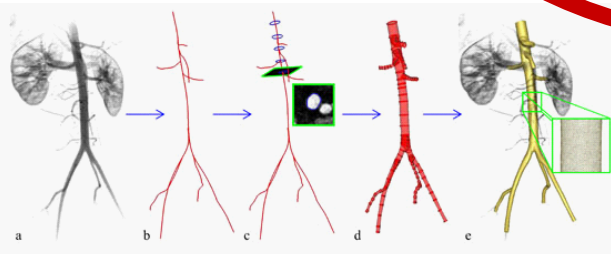
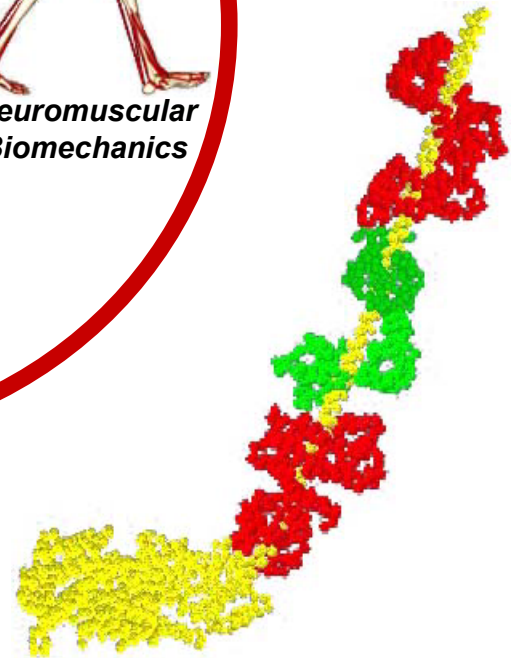
$$F=ma$$



Neuromuscular Biomechanics



Myosin Dynamics



Cardiovascular disease kills more Americans than the next five diseases combined.

See how Simbios is impacting surgical, pharmacological, and catheter treatments.

PI: Charley Taylor

Myosin is the fundamental source of motive force in living systems.

See how Simbios is deciphering this mechanical-chemical process.

PI: James Spudich