Biodegradable NO releasing Polymers

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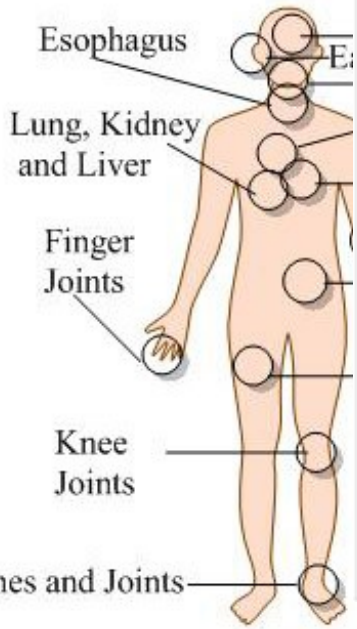
Biomedical Materials

Biodegradable



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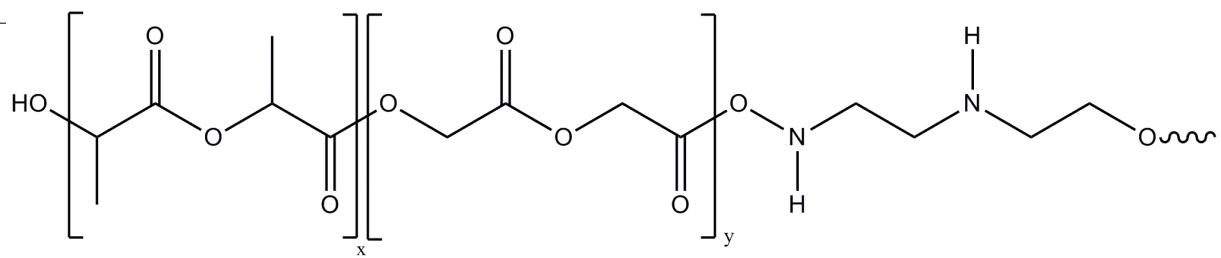
Goals for 2010

- Synthesize a polymer system, which can be loaded with NO
- Evaluate morphology changes to polymer system related to NO loading
- Monitor degradation of this system by mass and HPLC
- Characterize NO release by chemiluminescence measurments

Ideal Polymer System

- Biodegradable membrane
- FDA approval
- Non-toxic degradation products
- Quick degradation (4-6 weeks)
- Simple integration of NO functional groups
- Straight forward synthetic method

Proposed Synthetic Route



Characterizations of polymer films

- Verify creation through NMR
- Molecular Weight Determination by GPC
- Morphology through DSC

NO loading