

**Annotated Bibliography Graphic Organizer**  
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**Name: Divya Bhakta**

<p>Source # <u>2</u>          Bibliography          (MLA or APA)</p> <p>10 pts</p>	<p>Lu, Pengfei et al. "Extracellular Matrix Degradation and Remodeling in Development and Disease." <i>Cold Spring Harbor perspectives in biology</i> 3.12 (2011): 10.1101/cshperspect.a005058 a005058. <i>PMC</i>. Web. 27 Jan. 2018.</p>
<p>Annotation:          (Describe ALL info. that might be important for your paper. Explain to the reader and/or summarize what might be found in this source)</p> <p>35 pts</p>	<p><b>Abnormal vs. Normal</b></p> <ul style="list-style-type: none"> <li>- Abnormal ECM lead to deregulated cell increase, which can led to congenital defects and pathological processes. Normal ECM regulates stem cell niches, bone repair, and wound repair.</li> <li>- Understanding the mechanisms of ECM remodeling and its regulation is essential for developing new therapeutic interventions for diseases</li> </ul> <p><b>ECM Degradation and Remodeling</b></p> <ul style="list-style-type: none"> <li>- Components can be divided into proteins, glycoproteins</li> <li>- Fibrils from protein monomers contribute to the major tensile strength and viscoelasticity of the tissue</li> <li>- Essential roles of ECM are based on its unique physical, biochemical, and biomechanics properties</li> </ul> <p><b>Physical Properties</b></p> <ul style="list-style-type: none"> <li>- ECM is often referred to its rigidity, porosity, insolubility, topography</li> <li>- Clinicians have recognized that diseased tissues have markedly different elasticity than healthy ones. -&gt; the role of ECM elasticity has been confirmed in normal development.</li> </ul> <p><b>Environmental Changes</b></p> <ul style="list-style-type: none"> <li>- When ECM stiffens, under pathological conditions, its biomechanics properties change and cells respond by exerting different kinds of force.</li> <li>- Stiffer matrix also changes ECM physical properties and thus directly impacts how migrating cells interact with the ECM.</li> </ul>
<p>Potential Quotes:          (Are there any significant quotes you can use or paraphrase from this source?)</p> <p>15 pts</p>	<ul style="list-style-type: none"> <li>- "Linearized, cross-linked collagen bundles, which are quite stiff, potentiate cell migration, whereas a dense network of stiff, cross-linked matrix fibers impedes migration unless MMPs are simultaneously activated."</li> <li>- "The biomechanical properties of the ECM belong to a subcategory of its physical properties that determine how the ECM reacts to various forms of force, including tensile, compressive, shear, and other types of force loads applied by cells residing in the matrix."</li> <li>- "The abnormal changes in the ECM under various disease conditions, including tissue fibrosis and cancer, however, are by no means coincidental; rather, they reflect the important roles that the ECM plays in controlling cell behaviors."</li> </ul>

<p>Assessment: (Analyze and explain why this source is credible)</p> <p>15 pts</p>	<p>This is a credible source because it is a published .gov scholarly article. The authors are from the Paterson Institute for Cancer Research, Department of Anatomy and Program in Developmental Biology, and Department of Surgery and center for Bioengineering and Tissue Regeneration.</p>
<p>Reflection: (How will you potentially use it?)</p> <p>25 pts</p>	<p>I will use the quotes and primarily the information regarding environmental degradation to further qualify my ongoing experiment. For instance, I can use this article to provide additional examples proving that environmental effects do in fact affect ECM material. The article states that the protein composition is what become effected.</p>