Chem 412 Seminar
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Osteoarthritis: A Common Degenerative Disease of the Elderly

Arthritis is a degenerative joint disease that comes in a variety of forms and afflicts a large portion of the world's elderly population. One of the more common types of arthritis is osteoarthritis. Some researchers estimate that it afflicts over 85% of the world's elderly. The degeneration of articular cartilage and the narrowing of the space between bones at these joints characterize osteoarthritis. As the cartilage becomes degraded, the bone builds up and leads to stiffness in the joint. There are many different theories as to how this disease functions at the molecular level, and even at the anatomical level. Some of these theorized causes are abnormal cAMP, alkaline phosphatase, serum insulin, insulin-like growth factor-1, and proinflammatory mediator levels. Because of number of people affected by the disease and how little is currently known about it, osteoarthritis is a hot area of research that is expected to see many advances in the present decade. Some of the newer treatments for this disease focus on these abnormal chemical levels and try to correct them. In this seminar, I will discuss the symptoms, some of the theorized causes, some of the current treatments, and where the research is headed.

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