Rare Amino Acids Accelerate Cancer Growth

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This project looked at the effects of amino acid supplementation on cancer growth. I grew cancer cells with varying percentages of amino acids Tryptophan and Methionine and observed cell growth by measuring cell count with a fluorometer. The experiment attempted to observe the effects of dietary protein on cancer growth since the amino acids used were rare amino acids which can only be sourced from food. I was inspired to research this topic after witnessing my grandfather, who was diagnosed with terminal cancer and given 6 months to live, treat his cancer by focusing on optimal nutrition without chemotherapy and continues to survive well beyond the time he was given. My results exhibited a positive correlation between cancer cell growth and amino acids availability. These results could imply that an increase in protein can result in greater cancer cell growth. However, a different deduction that can also be taken is that restriction of rare amino acids or dietary protein could possibly stall cancer growth. Further studies would be needed to help elucidate this association.

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