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A Proposition for a Cancer Treatment Study Using Radioactive Metal co-Factor Enzymes and Inhibitors of Lipogenic Enzymes as a Potential Therapy against Cancer

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Abstract

Researchers have discovered an enzyme that inhibits the growth of cancer cells by stimulating proteins. In this study, the ability of each human cell to divide into two parts is discussed. For each division, a cell must follow certain steps, most of which are amplified by proteins called cyclins.

Keywords: Cancer; Cells; Tissues, Tumors; Prevention, Prognosis; Diagnosis; Imaging; Screening; Treatment; Management

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Introduction

The present study dealt with three type D cyclins. This subset, if cells divide, must interact with enzymes called cyclin-dependent kinases (CDKs), especially CDK4 and CDK6. The authors found that AMBRA1, as a ligase, binds molecular tags to all three type D cyclins and labels them for degradation. Mechanisms previously proposed for how cells remove type D cyclins cannot be produced by the scientific community. Prior to the new study, the central regulator of type D cyclines remained unattainable for a quarter of a century, according to Pagano. The new work also demonstrated the role of AMBRA1 in development. Mice lacking the AMBRA1 gene produced uncontrollable and lethal growth of tissue that distorts the growing brain and spinal cord. The researchers also found for the first time that treatment with pregnant CDK4 / 6-blocking mice carrying the fetus without the AMBRA1 gene would reduce these

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neurological abnormalities. In terms of cancer, the researchers analyzed patient data and concluded that those whose expression in AMBRA1 was lower than normal were less likely to survive in large B-cell lymphoma. Causes of AMBRA1 lower expression may include accidental changes that delete the gene or make it difficult to read encrypted instructions [1-510].

Results and Discussion

To confirm the role of AMBRA1 as a tumor suppressor, examined the growth of cancer cells in B-cell lymphoma models. For example, when human B-cell lymphoma cells were transplanted into mice, tumors without the AMBRA1 gene grew three times faster than those with the gene. In addition, type D cyclins have been shown to convert to enzymes with CDK4 and CDK6, which increase the growth of normal and abnormal cells. Drugs that inhibit CDK4 and CDK6 have been approved by the FDA in recent years as cancer treatments, but some patients have a weaker response to the drugs. Realizing this problem, the current team found that AMBRA1-free lymphomas were less sensitive than CDK4 / 6 inhibitors. When the AMBRA1 gene is destroyed, the level of type D cyclins is high enough that they can form a complex with another CDK (CDK2) that, due to its structure, is not inactivated by CDK4 / 6 inhibitors.

Conclusions

This study showed that an enzyme called AMBRA1 tags a key class of cyclins for degradation by cellular devices that break down proteins. This suggests that enzyme control of cyclins is essential for proper cell growth during embryonic development, and that improper functioning cause's overgrowth of lethal cells; In addition, the above study suggests that an existing drug group may be able to reverse such defects in the future. As in a growing fetus, restriction on cell division is essential to prevent the abnormal and aggressive growth seen in cancer. This study shows that cells have evolved to use AMBRA1 to defend against it. Our Study Key Features It illuminates human cells, provides insight into the biology of cancer, and opens up new research avenues for potential therapies.

Acknowledgment

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Scattering (SANS), Grazing-Incidence Small-Angle Neutron Scattering (GISANS), X-Ray Diffraction (XRD), Powder X-Ray Diffraction (PXRD), Wide-Angle X-Ray Diffraction (WAXD), Grazing- Incidence X-Ray Diffraction (GIXD) and Energy-Dispersive X-Ray Diffraction (EDXRD) Comparative Study on Malignant and Benign Human Cancer Cells and Tissues under Synchrotron Radiation. Glob Imaging Insights. 3: 1-10.

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1H-Purin-6(9H)-One, 2-Amino-9-((1R, 3R, 4S)-4-Hydroxy-3-(Hydroxymethyl)-2-Methylenecyclopentyl)-1H-Purin-6(9H)-One and 2-Amino-9-((1S, 3R, 4S)-4-Hydroxy-3-(Hydroxymethyl)-2-Methylenecyclopentyl)-1H-Purin-6(9H)-One-Enhanced Precatalyst Preparation Stabilization and Initiation Nano Molecules. Glob Imaging Insights. 3: 1-9.

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Cancer Nano Drugs, Nano Drugs Delivery, ATR-FTIR Spectroscopy, Raman Spectroscopy, Intelligent Molecules, Molecular Dynamics, Biosensors, Biomarkers, Molecular Diagnostics, Numerical Chemistry, Nucleic Acids, DNA/RNA Monitoring, DNA/RNA Hypermethylation & Hypomethylation, Human Cancer Tissues, Human Cancer Cells, Tumors, Cancer Tissues, Cancer Cells, etc. He has participated at more than five hundred reputed international conferences, seminars, congresses, symposiums and forums around the world as yet. Also, he possesses many published articles in Science Citation Index (SCI)/International Scientific Indexing (ISI), Medline/PubMed and Scopus Journals. It should be noted that he has visited many universities or scientific and academic research institutes in different countries such as United States, United Kingdom, Canada, Australia, New Zealand, Scotland, Ireland, Netherlands, Belgium, Denmark, Luxembourg, Romania, Greece, Russia, Estonia, Ukraine, Turkey, France, Swiss, Germany, Sweden, Norway, Italy, Austria, Czech Republic, Hungary, Poland, South Africa, Egypt, Brazil, Spain, Portugal, Mexico, Japan, Singapore, Malaysia, Indonesia, Thailand, Taiwan, Hong Kong, Philippines, South Korea, China, India, Kingdom of Saudi Arabia, Jordan, Qatar, United Arab Emirates, etc. as research fellow, sabbatical and volunteer researcher or visitor and so on heretofore. He has a history of several years of teaching for college students and various disciplines and trends in different universities. Moreover, he has been a senior advisor in various industry and factories. He is expert in many computer programs and programming languages. Hitherto, he has authored more than twenty books and book chapters in different fields of Chemistry. Syne, he has been awarded more than one thousand reputed international awards, prizes, scholarships and honors. Heretofore, he has multiple editorial duties in many reputed international and peer-reviewed journals, books and publishers. Hitherward, he is a member of more than five hundred reputed international academic-scientific-research institutes around the world. It should be noted that he is currently the President of the American International Standards Institute (AISI), Irvine, California, USA and also Head of Cancer Research Institute (CRI) and Director of the Bio Spectroscopy Core Research Laboratory at California South University (CSU), Irvine, California, USA.

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