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**Steroids**

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**Effect of progesterone and its receptor antagonist RU-486 on melanoma cell growth**

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Sex steroids such as androgens, estrogens and progestins are essential for healthy skin. So, their effects on melanoma, a fatal form of skin cancer were investigated using mouse (B16F10) and human (BLM) melanoma cell lines. Among four sex steroids (dehydroepiandrosterone, androstenedione, testosterone, progesterone) tested, progesterone showed maximum inhibition of mouse melanoma cell growth. Further research work showed that progesterone receptor antagonist RU-486 also showed significant inhibition of mouse melanoma cell growth. But, these actions were not mediated through progesterone receptor. Progesterone also inhibited human melanoma cell growth and the mechanism of inhibition was due to autophagy. RU-486 also inhibited human melanoma cell growth and the mechanism of inhibition was due to apoptosis.

**Biography**

Pandurangan Ramaraj obtained Master's degree in Medical Biochemistry from JIPMER and PhD in Biochemistry from Indian Institute of Science, India. He completed Postdoctoral research work in US which involved gene and function studies on transgenic & knockout mice, oncogene transfer into human hematopoietic stem cells and transdifferentiation of murine mesenchymal stem cell. He started his teaching career as an Instructor at Cleveland Chiropractic College, Los Angeles before joining Kirksville College of Osteopathic Medicine as an Asst. Prof, where he is currently teaching Medical Biochemistry to D.O. students. His research interest is in studying the effect of steroid hormones on cancer using mouse and human melanoma cell lines as model systems.

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