

NEW MEXICO TECH

CHEMISTRY 14

MARCH

LOPEZ 106 @ 12PM

INFLUENCE OF BREAST CANCER LIPID CHANGES ON MEMBRANE OXYGEN PERMEABILITY

HYPOXIA IS COMMON IN CANCERS OF THE BREAST, YET THE EFFECTIVENESS OF TUMOR RADIOTHERAPY IS ENHANCED GREATLY BY INTRACELLULAR OXYGEN (O_2). LIPID BIOSYNTHESIS IS UPREGULATED IN CANCERS, AND THE NEW LIPIDS ARE USED TO BUILD MEMBRANES FOR CELL PROLIFERATION. SPECIFIC PRODUCTS OF DE NOVO ("NEW") LIPID BIOSYNTHESIS ARE UNUSUALLY ABUNDANT IN BREAST CANCER CELL MEMBRANES. MY PRESENTATION WILL FOCUS ON THE LIPID EFFECTS ON DE NOVO OXYGEN PERMEABILITY OF MODEL MEMBRANES. IN PARTICULAR, WE HAVE FOUND THAT THE DE NOVO LIPID TAIL LENGTH INFLUENCES OXYGEN PERMEABILITY AND THAT THE PERMEABILITY CHANGE DEPENDS ON THE TAIL'S POSITION WITHIN THE PHOSPHOLIPID.



SEMINAR PRESENTED BY

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