youth population in their academic progress. Because academic achievement is not, to a large extent, based on solely on socio-economic factors, the purpose of this research is to observe how parental involvement and culture within the household affects the academic development of the children. Various studies have been consulted in regards to childhood activities within and outside the household by observing their family structure, size, and routines. The results show that one of the most effective methods that produce higher academic results involves direct family engagement and as such, reform and creation of school policies in early childhood education programs should be sensitive to this evidence, in order to exercise parental involvement in the academic setting of Latino youth.

56. Garcia, Elizabeth

**Behaviors of At-Risk Youth as Predictors of Detention Recidivism**

Adolescence is a period in which youth experiment with many things as a way of trying to find their identity and a place in society. They are easily influenced by their peers and those around them and that can sometimes get them into trouble. It is also a time when, for some, they enter into delinquency. It is crucial for alternative residential programs like the Manuel Saura Center to try to identify the types of behaviors that indicate or are predictors of recidivism, admittance into a detention facility, in order to better tailor their programs to fit the needs of these vulnerable youth and prevent them from living a life of crime. Identification of key behaviors that predict recidivism are essential for just that. The participants in this study include male and female residents of Saura Center between the ages of 10-17 years with an average age of 15.6 who were referred to the center by the Cook County Juvenile Probation Department. A thorough analysis of the archival records of the participants was conducted including their daily score sheets, incident reports, and the staff record communications. A logistical regression of potential key indicators to recidivism will determine which behaviors more accurately predict recidivism. The behaviors to be looked at are refusal to follow directions or participate in group, verbal abuse or threats against staff, and noncompliance with physical escort, and contraband. So far in the data analysis, the behavior to most closely predict recidivism into the facility is verbal abuse or threats against staff. An early conclusion could suggest that emotional intelligence sessions be integrated into their curriculum.

57. Gardiye Punchihewa, Kasun; An, Se Yong and Metlushko, Vitali

**Nano-Fabricated Extracellular Matrix (ECM) Topography Could Alter the Cancer Cell Behavior**

Graduate – Electrical and Computer Engineering

Current therapeutic approaches for cancer, such as chemotherapy are highly invasive and have undesirable side effects. Even the surgeries cannot guarantee a complete recovery. Therefore advanced and effective alternate approach for cancer treatment is a timely requirement. It has been shown that the extracellular matrix (ECM) surrounding the cells could be used to manipulate the cell behavior. We exploited this technique, and trying manipulated the ECM to control the cancer cell growth. Our study mainly focuses on colon cancer treatment. Epidemiological data indicates that the colon cancer is one of the main causes in cancer deaths in USA. Topographical information of the human colon epithelial tissues was obtained using scanning electron microscope (SEM). Depending on the stage of the cancer, differentiation of the cells can be changed. We imaged the ECMs of normal, well differentiated, moderately differentiated and poorly differentiated colonic cancer cells. Our aim was to find out the dose matrix which is required to reconstruct the individual topographies using electron beam lithography (EBL), based on these images. Number of