



**CALIFORNIA STATE SCIENCE FAIR  
2014 PROJECT SUMMARY**

<b>Name(s)</b> <b>Jagannathan Rangarajan</b>	<b>Project Number</b> <b>J0924</b>
<b>Project Title</b> <b>The Untold Truth! The Effects of Cell Phone Radiations (Comparison)</b>	
<b>Abstract</b> <b>Objectives/Goals</b> Does your cell phone emit radiation, which brand emits the most radiation, compare radiation strength during incoming and outgoing calls and at what distance will generate the most radiation waves.  The objective is to create awareness about this biggest non-drug addiction in the 21st century. <b>Methods/Materials</b> Materials: A jig to hold the cell phone, few cell phones and a EMF detection meter.  Methods: Mount the cell phone on a jig and dial to that cell phone and measure the radiation. Move the cell phone at different distances and measure the radiation. Do this for few other cell phones, and chart the results. <b>Results</b> The radiations levels are generally the same on all aspect of the experiment, classified as : the more the distance from the phone, the less radiation. Samsung Galaxy S4 when held zero inches away from cell sensor during the incoming call produced the most radiation waves (Comparison based on LG, Blackberry and Samsung Andriod phones). <b>Conclusions/Discussion</b> The inference is that the farther one holds their phone from their head, the less radiation the human brain is exposed to. Other ways to discount radiation exposure is the use of bluetooth or speaker phone.  Children are at greater risk than adults for developing brain cancer from cell phone as their nervous systems are developing and more vulnerable to factors causing cancer. Their heads are smaller compared to adults and have a greater proportional exposure to the field of radio frequency radiation emitted by cell phones.	
<b>Summary Statement</b> The Comparison and Effects of Cell Phone Radiation	
<b>Help Received</b> Dad reviewed my grammer, and ordered me a cell phone detector meter.	