

### 10840 Neonatal Life-Saving Technologies – an Overview

Megan E. Kirk

East Tennessee State University







## The Team / Workgroup

Megan E. Kirk

Dr. Marko Kostic

Dr. William H. Blanton

Dr. Joseph Shrestha







### **Description**

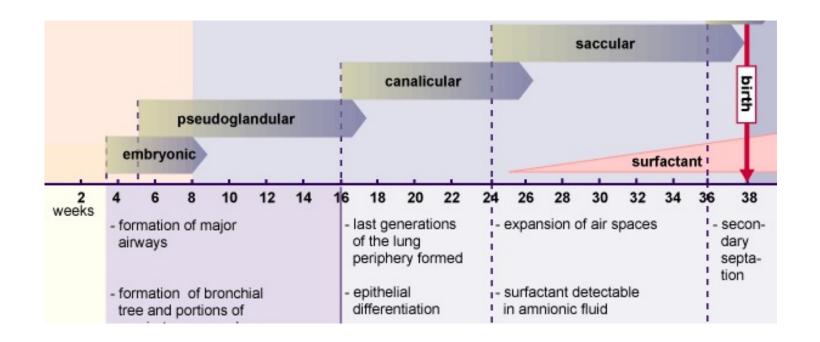
The main causes of mortality in premature infants revolve around issues with the underdeveloped heart and lungs. To prevent premature births, numerous drugs and been developed to reduce the occurance of preterm labor. These drugs, however, do not always work. What happens if the infant is born prematurely?







### **Biweekly Lung Development in Utero**







# Average Likelihood of Infant Survival by Gestational Age

Gestational Age	Likelihood of Survival
22 weeks	0%
23 weeks	17%
24 weeks	39%
25 weeks	50%
26 weeks	80%
27 weeks	90%
28-31 weeks	90-95%
32-33 weeks	95%
34+ weeks	95-100%







## Goals of the project and final users that will benefit

This study investigated current biologics and technologies being used in neonatal intensive care units, as well as life-saving technologies currently still under development.







#### **Results**

An artificial womb has a potential to provide a shift in how we treat and support premature infants. Further research, as well as review of ethical implications, in this and other potentially life-saving technologies is warranted.





### Megan E. Kirk

kirkme@etsu.edu East Tennessee State University, USA





