studiofiFIELD
knowing what matters

CRADL

Thanks to direct financial support from the European Commission, Studio Fifield is participating as the unique design partner in a project consortium which has been awarded a European Horizon 2020 research and innovation project grant to develop a ground-breaking lung monitor for premature babies.

Each year 15 million babies are born prematurely and many suffer from respiratory failure due to immaturity of the lung and lack of control of breathing.

Although respiratory support, especially mechanical ventilation can improve their survival, it also causes severe injury to the vulnerable lung resulting in severe and chronic pulmonary morbidity lasting into adulthood. Heterogeneity of lung aeration plays a crucial part in the risk of mortality and morbidity due to respiratory failure; this distribution of lung aeration cannot be detected by currently available bedside monitoring tools and imaging methods.

Under the leadership of the worldwide renowned EIT scientist Prof. Richard Bayford, a consortium of 11 institutes and service providers has been awarded a European Horizon 2020 project to address this urgent need.

The CRADL (Continuous Regional Analysis Device for neonate Lung) project will use Electrical Impedance Tomography (EIT) technology to establish a bed side monitoring tool for interventions in the pediatric population.

CRADL will show how EIT can provide new cost effective, easy to use, respiratory management support and clinical protocols that can be universally adopted to reduce deaths and disability in preterm babies. CRADL will deliver a tool that provides continuous, non-invasive, radiation free, bedside information on regional lung aeration and ventilation during daily clinical care of (preterm) infants and children with respiratory failure.

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