cells whereas levels of miR-145 and -223 appeared to be reduced.

**Conclusions** We have demonstrated for the first time that miRNA are detectable in CF iPSC derived bronchospheres with altered expression following a directed differentiation approach of iPSC into proximalised airway epithelium. Expression patterns in iPSC may be different to patient bronchial epithelial cells previously described and warrants further investigation.

**GP14** **ADOLESCENTS USE OF METAPHORS TO NARRATE THEIR EXPERIENCE’S OF LIVING WITH CHRONIC KIDNEY DISEASE: AN IRISH PERSPECTIVE**

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**Objective** Chronic Kidney Disease (CKD) is a debilitating lifelong condition, which can impact many aspects of a person’s life. Experiencing CKD during adolescence is further complicated by the multitude of developmental changes that young people go through at this time period. There is limited research that examines the perspectives of adolescents living with CKD and how they make sense of their experiences. This poster presentation will display/illustrate how adolescents’ use metaphors to narrate their experiences of living with Chronic Kidney Disease. These findings were identified from a qualitative narrative study examining Irish adolescents’ embodied experience of living with CKD.

**Methods** A narrative study using an ethnographic approach was used in this study. Multiple methods were used to engage with five adolescents (10–17 years) living with CKD over an 18-month timeframe in both hospital and home settings. Data was collected from participants through participant observation, informal interviews and participatory methods i.e. body mapping. The collective stories of the adolescents were analysed using Riesman’s approach to narrative analysis.

**Results** The findings of this study reveal that adolescents use visual and textual metaphors as a strategy for communicating the complexities of living with CKD. Within their narratives, adolescents, used scientific metaphors (CKD as a black hole and atom), journey metaphors (Orbiting) and supernatural metaphors (alien or vampire) to portray themselves and their condition, and to articulate their experiences in ways that were meaningful to them.

**Discussion** The findings of this study offer a unique contribution to knowledge by highlighting the fact that metaphors are essential to adolescents’ narrations about living with, and communicating about, CKD experiences. Understanding how adolescents communicate about and experience their chronic condition is critical to enable health care providers to appreciate CKD beyond its physical and medical context; thereby providing awareness of the personal implications of chronic disease management on young people’s psychological and social health and wellbeing. These finding have further implications for how health care providers might effectively communicate with adolescents about their personal experiences of living with CKD.
and its relative concentration with significative differences in the acquired spectra, to obtained the so called specific Phe NIR fingerprint of the sample. These observation open the exciting possibility to design a chemiometric model to assay the amount of Phe in DBS without elution and the expensive chromatographic procedures.

GP16 EFFECT OF DROPLET SIZE ON AEROSOL DELIVERY DURING SIMULATED NEONATAL MECHANICAL VENTILATION

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Abstract GP16 Table 1 Lung dose (%) using two nebulisers of varying droplet size, at two positions within the circuit. P-values are included to indicate significance.

<table>
<thead>
<tr>
<th>Nebuliser position</th>
<th>Lung dose (%) 2.76μm</th>
<th>Lung dose (%) 4.30μm</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry side of the humidifier</td>
<td>1.93 ± 0.20</td>
<td>1.39 ± 0.11</td>
<td>0.02</td>
</tr>
<tr>
<td>Between Wye and ETT</td>
<td>3.88 ± 1.24</td>
<td>2.75 ± 0.77</td>
<td>0.25</td>
</tr>
</tbody>
</table>

Discussion Increasing droplet size was associated with a significantly reduced lung dose when the nebuliser was positioned at the dry side of the humidifier (p-value = 0.02). Increasing droplet size was associated with a reduced lung dose when the nebuliser was placed between the Wye and ETT. However, this difference was not found to be statistically significant (p-value = 0.25). In conclusion, these findings demonstrate that droplet size affects aerosol delivery during neonatal mechanical ventilation.

GP17 DISTRIBUTION OF NON-FUNCTIONAL ALLELE OF CYP2D6 GENE (RS1065852) AMONG BURYAT ADOLESCENTS

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Introduction Individual reaction to medicine is determined by genetic factors. The CYP2D6 gene is involved in the metabolism of 20–25% of medication. The carriage of CYP2D6*10 affects the synthesis of a defective protein with a reduced activity of the CYP2D6 isoenzyme, which determines the difference in interindividual medicine variability and an increased risk of undesirable drug reactions. Distribution of CYP2D6*10 varies in different races and ethnic groups.

Methods In 151 Buryat adolescents, DNA was isolated from whole venous blood, the allelic composition was determined by the CYP2D6*10 gene polymorphism (rs1065852). The average age of the subjects was 16.02±2.05 years. Buryats belong to the indigenous people living on the Asian part of Russia. They belong to the Mongoloid race and are part of the small North Asian race. When forming the samples, ethnicty was taken into account in at least three generations.

Result Identified carriers of two genotypes rs1065852 CYP2D6*10: SS (70.19%) and CT (29.81%). The prevalence of functional C-allele was 85.1%; non-functional T-allele - 14.9%. When comparing the prevalence of non-functional T-allele rs1065852 CYP2D6*10 with the same indicator in other populations of the world, significant differences with the Mongols (T-allele frequency 55.0%, p<0.001), Japanese (T-allele frequency 44.7%, p<0.001), Filipinos (5.4%, p<0.001), Bedouins (4.7%, p=0.0146), representatives of the Mbuti tribe (0%, p=0.0366). No significant differences in the prevalence of non-functional T-allele rs1065852 CYP2D6*10 with Caucasians (12.5–22.5%), Yakuts (17.5%), Japanese (15.0%), African Americans (9.9–13%) and some residents of the Middle East (7.9–25.9%).

Conclusions The presence of significant differences in distribution of non-functional T-allele CYP2D6*10 (rs1065852) in the Buryat population was shown in comparison with some populations of the Mongoloid and Negroid races.

GP18 NEONATES BORN TO RHEUS POSITIVE WOMEN WITH PERINATALLY-DETECTED RED CELL ANTIBODIES: A CASE SERIES

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Background Haemolytic Disease of the Fetus & Newborn (HDFN) results from maternal IgG red cell allo-antibodies crossing the placenta & binding to their corresponding antigen on red cells in the fetal circulation. Immune haemolysis can cause varying degrees of anaemia & unconjugated hyperbilirubinaemia in the fetus & neonate.

At present, all women have bloods drawn for group & antibody screen at booking. For expectant mother who test RhD positive, repeat antibody screening is not carried out in the absence of antibodies at booking.