## Comments on IPCRR Data

Observations from information in the IPCRR

We have found that the summary data may cause some misunderstandings due to the small number of patients enrolled who have PC-K6b or PC-K6c.

As shown on the individual data sets, there is a variation by gene in the phenotypic features of PC.

Within some genes (for example KRT 16) there is also a variation based on the specific mutation which causes a major difference in nail findings, Fu et al., Genotype-phenotype correlations among pachyonychia congenita patients with K16 mutations. Journal of Investigative Dermatology 2011:131;1025-8.

More research is needed to more fully understand the types of PC and the individual mutations.

<table>
<thead>
<tr>
<th>IPCRR Data Jan 2021</th>
<th>All PC Genes N=1038</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toenails Dystrophy</strong></td>
<td>995 of 1038 (96%)</td>
</tr>
<tr>
<td>all 10 toenails thickened</td>
<td>655 of 1038 (63%)</td>
</tr>
<tr>
<td>7-9 toenails thickened</td>
<td>91 of 1038 (09%)</td>
</tr>
<tr>
<td>4-6 toenails thickened</td>
<td>141 of 1038 (14%)</td>
</tr>
<tr>
<td>1-3 toenails thickened</td>
<td>108 of 1038 (10%)</td>
</tr>
<tr>
<td><strong>Toenails - Onset</strong></td>
<td>N = 1008</td>
</tr>
<tr>
<td>Birth or less than 1 year</td>
<td>530 of 1008 (53%)</td>
</tr>
<tr>
<td>1 to 4 years old</td>
<td>201 of 1008 (20%)</td>
</tr>
<tr>
<td>5 to 14 years old</td>
<td>175 of 1008 (17%)</td>
</tr>
<tr>
<td>15 years and over</td>
<td>86 of 1008 (09%)</td>
</tr>
<tr>
<td><strong>Fingernail Dystrophy</strong></td>
<td>767 of 1038 (74%)</td>
</tr>
<tr>
<td>all 10 fingernails thickened</td>
<td>524 of 1038 (50%)</td>
</tr>
<tr>
<td>7-9 fingernails thickened</td>
<td>54 of 1038 (05%)</td>
</tr>
<tr>
<td>4-6 fingernails thickened</td>
<td>122 of 1038 (12%)</td>
</tr>
<tr>
<td>1-3 fingernails thickened</td>
<td>67 of 1038 (06%)</td>
</tr>
<tr>
<td><strong>Fingernails - Onset</strong></td>
<td>N = 767</td>
</tr>
<tr>
<td>Birth or less than 1 year</td>
<td>501 of 767 (65%)</td>
</tr>
<tr>
<td>1 to 4 years old</td>
<td>126 of 767 (16%)</td>
</tr>
<tr>
<td>5 to 14 years old</td>
<td>72 of 767 (09%)</td>
</tr>
<tr>
<td>15 years and over</td>
<td>74 of 767 (10%)</td>
</tr>
<tr>
<td><strong>Plantar Keratoderma</strong></td>
<td>937 of 1038 (90%)</td>
</tr>
<tr>
<td>Always (never goes away)</td>
<td>879 of 1038 (85%)</td>
</tr>
<tr>
<td>Sometimes (clear up at times)</td>
<td>42 of 1038 (04%)</td>
</tr>
<tr>
<td>Seldom (feet usually clear)</td>
<td>13 of 1038 (01%)</td>
</tr>
<tr>
<td><strong>Plantar Keratoderma- Onset</strong></td>
<td>N = 937</td>
</tr>
<tr>
<td>Birth or less than 1 year</td>
<td>117 of 937 (12%)</td>
</tr>
<tr>
<td>1 to 4 years old</td>
<td>448 of 937 (48%)</td>
</tr>
<tr>
<td>5 to 14 years old</td>
<td>335 of 937 (36%)</td>
</tr>
<tr>
<td>15 years and over</td>
<td>39 of 937 (04%)</td>
</tr>
<tr>
<td><strong>Plantar Pain</strong></td>
<td>942 of 999 (94%)</td>
</tr>
<tr>
<td>Often require meds for pain</td>
<td>237 of 999 (24%)</td>
</tr>
<tr>
<td>Very painful, but do not use meds</td>
<td>398 of 999 (40%)</td>
</tr>
<tr>
<td>Somewhat painful</td>
<td>252 of 999 (25%)</td>
</tr>
<tr>
<td><strong>Palmar Keratoderma</strong></td>
<td>657 of 1038 (63%)</td>
</tr>
<tr>
<td>Always (never goes away)</td>
<td>341 of 1038 (33%)</td>
</tr>
<tr>
<td>Sometimes (clear up at times)</td>
<td>113 of 1038 (11%)</td>
</tr>
<tr>
<td>Seldom (hands usually clear)</td>
<td>153 of 1038 (15%)</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td>Oral Leukokeratosis</td>
<td>539 of 1038 (52%)</td>
</tr>
<tr>
<td>Cysts</td>
<td>532 of 1038 (51%)</td>
</tr>
<tr>
<td>Follicular Hyperkeratosis</td>
<td>369 of 1038 (36%)</td>
</tr>
<tr>
<td>Natal or Prenatal Teeth</td>
<td>148 of 1038 (14%)</td>
</tr>
</tbody>
</table>