The national IMODI (Innovative MOdelS initiative) consortium including 18 partners (pharma, SMEs, academic research labs and clinical centers) aims at developing more predictive tools for better selection of effective treatments to combat 9 cancer pathologies. These developments include:
- Collection of In-vivo PDX models,
- Collection of In-vitro derived cell lines,
- 2D & 3D ex-vivo assays,
- Characterization of tumor histology, gene mutation, gene expression,
- Collection of derived cell lines & characterization

What about IMODI…

IMODI is an operational consortium to continuously deliver new representative models in regards to specific clinical needs and diversity,

PDX model samples:
- Tumor
- Blood
- Stools

PDX model selection: 117 PDX models and 50 derived cell lines

Different phenotypes of the pancreatic PDX models are highly conserved genotype between in vivo passages

IM-PAN-009 PDX model is very sensitive to Gemcitabine

The IM-PAN-004 is marginally sensitive to Gemcitabin and 5-FU

CPT-11 is the most effective drug in a short panel of 11 PDX models tested ex-vivo

IC50 (µM) of 4 drugs tested in 2D primoculture of cells extracted from PDX models:

<table>
<thead>
<tr>
<th>Model ID</th>
<th>CPT-11</th>
<th>GEM</th>
<th>5FU</th>
<th>L-OHP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM-PAN-001</td>
<td>0</td>
<td>1</td>
<td>95</td>
<td>8</td>
</tr>
<tr>
<td>IM-PAN-002</td>
<td>0</td>
<td>1</td>
<td>95</td>
<td>8</td>
</tr>
<tr>
<td>IM-PAN-004</td>
<td>16</td>
<td>0</td>
<td>&gt;1000</td>
<td>48</td>
</tr>
<tr>
<td>IM-PAN-006</td>
<td>0</td>
<td>7</td>
<td>62</td>
<td>33</td>
</tr>
<tr>
<td>IM-PAN-012</td>
<td>0</td>
<td>0</td>
<td>&gt;1000</td>
<td>400</td>
</tr>
<tr>
<td>IM-PAN-014</td>
<td>0</td>
<td>0</td>
<td>&gt;1000</td>
<td>530</td>
</tr>
<tr>
<td>IM-PAN-015</td>
<td>0</td>
<td>0</td>
<td>&gt;1000</td>
<td>530</td>
</tr>
<tr>
<td>IM-PAN-016</td>
<td>0</td>
<td>0</td>
<td>&gt;1000</td>
<td>62</td>
</tr>
</tbody>
</table>

NB of sensitive/resistant PDX models:

- 100% sensitive to CPT-11
- 89% resistant to 5-FU
- 73% to L-OHP
- 55% to GEM

C (%) of 4 drugs tested in PDX models:

<table>
<thead>
<tr>
<th>Drug</th>
<th>% Sensitive</th>
<th>% Resistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT-11</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>GEM</td>
<td>89</td>
<td>11</td>
</tr>
<tr>
<td>5FU</td>
<td>73</td>
<td>27</td>
</tr>
<tr>
<td>L-OHP</td>
<td>55</td>
<td>45</td>
</tr>
</tbody>
</table>

IM-PAN-0092 PDX model is very sensitive to Gemcitabatin while 5-FU, CPT-11 and Oxaliplatine are inactive

The IM-PAN-004 is marginally sensitive to Gemcitabatin and 5-FU and not sensitive to CPT-11 and Oxaliplatine

IM-PAN-016 PDX model is resistant to all 4 drugs tested.

IM-PAN-004 PDX model is sensitive to CPT-11 and Oxaliplatine while resistant to 5-FU and L-OHP.

IM-PAN-009 PDX model is sensitive to CPT-11 and Oxaliplatine while resistant to 5-FU and L-OHP.

IM-PAN-012 PDX model is resistant to all 4 drugs tested.

IM-PAN-015 PDX model is sensitive to CPT-11 and Oxaliplatine while resistant to 5-FU and L-OHP.

IM-PAN-013 PDX model is sensitive to CPT-11 and Oxaliplatine while resistant to 5-FU and L-OHP.

IM-PAN-002 PDX model is sensitive to CPT-11 and Oxaliplatine while resistant to 5-FU and L-OHP.

IM-PAN-001 PDX model is sensitive to CPT-11 and Oxaliplatine while resistant to 5-FU and L-OHP.

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