A patient-derived explant culture of human prostate cancer to test drug efficacy

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Organisation
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Geographical Area Flemish Region

Partners and collaborations
University of Adelaide

SCOPE OF THE METHOD

<table>
<thead>
<tr>
<th>The Method relates to</th>
<th>Human health</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Method is situated in</td>
<td>Basic Research, Translational - Applied Research</td>
</tr>
<tr>
<td>Type of method</td>
<td>In vitro - Ex vivo</td>
</tr>
<tr>
<td>Specify the type of cells/tissues/organs</td>
<td>Human prostate cancer tissue</td>
</tr>
</tbody>
</table>

DESCRIPTION

Method keywords
Explant
human
Patient-derived

**Scientific area keywords**
prostate
cancer
drug testing

**Method description**
Patient-derived explants of prostate cancer provide an *ex vivo* model that retains the architecture and microenvironment of the native tissue. It enables the evaluation of drug responses on individual patient's tumors *ex vivo* without passaging in animals. It is compatible with all molecular analysis methods. See in the references "A patient-derived explant (PDE) model of hormone-dependent cancer."

**Lab equipment**
CO2-incubator ;
Laminar flow ;
Cell culture room.

**Method status**
History of use
Published in peer reviewed journal

**PROS, CONS & FUTURE POTENTIAL**

**Advantages**
Patient-derived ;
*Ex vivo* ;
No animals involved ;
Retains original tissue architecture and tumor microenvironment ;
Economic ;
Reasonable throughput.

**Challenges**
Long-term culture is challenging;
Limited around of material.

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

References