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Webinar

Culturing Human Cells: Optimizing Growth Conditions for Immunotherapy

Wednesday, October 1, 2014
12 noon Eastern, 9 a.m. Pacific, 5 p.m. UK, 6 p.m. Central Europe

During the webinar, the panelists will:

- Highlight how immunotherapy is currently being applied in the clinic and those factors important to generating high-quality cells
- Discuss the importance of perfusion to achieving high cell yield and its effect on cell markers and characteristics
- Focus on optimization of culture conditions when generating cells for reperfusion into patients
- Answer your questions live during the webinar!

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webinar.sciencemag.org

Growing human cells in culture for research is one thing, but the isolation and culture of high-quality cells that will be re-injected back into the donor is quite another. Manipulation and expansion of cells in a clinical setting carries its own unique requirements and complications. Growth and survival needs to be optimized and quality control is paramount. Often only a single opportunity for successful treatment is possible, so chances of success need to be maximized in all respects, including high-yield isolation of good quality cells from patients, cell culture conditions, cell characterization, and reperfusion back into patients. During this webinar, we will broadly discuss the process of immunotherapy as well as examine in more detail some of the most critical steps along the pathway to generating a therapeutic dose of modified cells.

Speakers

Laurence J. N. Cooper, M.D., Ph.D.
MD Anderson Cancer Center
Houston, TX

Michelle Janas, Ph.D.
GE Healthcare
Cardiff, Wales
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MagSi-NGSprep is a magnetic, bead-based tool that offers an efficient solution for DNA cleanup and size selection in next generation sequencing (NGS) applications. MagSi-NGSprep supports all standard DNA clean-up protocols encountered during Next-Gen library preparation, including the classical one-sided and two-sided “solid phase reversible immobilization” size selection protocols. The simple and flexible protocols employed using MagSi-NGSprep can be adjusted to your specific application and NGS platform. MagSi-NGSprep can be used manually but is also easy to automate for high throughput processing. Using MagSi-NGSprep. DNA fragments are bound directly onto the surface of the magnetic beads, leaving unincorporated nucleotides, primers, primer dimers, and other contaminants in solution. Following this the DNA fragments are eluted with low salt buffer or reagent grade water. The technology for binding of DNA fragments onto the applied magnetic nanoparticle surface does not require use of any hazardous chaotropic buffers.
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We’re taking a closer look
at the evolving state of chemical education

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Prostatic Acid Phosphatase (D3Y5P) Rabbit mAb #12861: WB analysis of extracts from human prostate, testis, liver, and spinal cord using #12861 (left) and GAPDH (D16H11) XP® Rabbit mAb #5174 loading control (right) demonstrating prostate-specific expression of ACPP.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Band Size (kDa)</th>
</tr>
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<tbody>
<tr>
<td>Human Prostate Tissue</td>
<td>140</td>
</tr>
<tr>
<td>Human Testis Tissue</td>
<td>134</td>
</tr>
<tr>
<td>Human Liver</td>
<td>120</td>
</tr>
<tr>
<td>Human Spinal Cord</td>
<td>100</td>
</tr>
</tbody>
</table>

Non-specific bands
Clean Band

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