Audience Response Results

A wireless, anonymous polling technology was used in the final plenary session to allow all Summit participants to log their opinions about each of the biotechnologies as well as the conclusions from the outcomes group. These results provide a summary of how the participants voted on each biotechnology and the outcomes issues following the Summit. The votes were taken on six questions that were the same for all of the biotechnologies. The voting on outcomes was for another set of questions. The results of the voting are shown below.

ART RESULTS COMPARED BY TECHNOLOGY

1. There is a significant dental implant patient population that could benefit from:

   - Tissue engineering: 83%
   - Growth and differentiation: 75%
   - Nanotechnology: 59%
   - Adult stem cell: 60%

2. The following technology has the potential to significantly improve clinical outcomes with dental implants:

   - Tissue engineering: 70%
   - Growth and differentiation: 70%
   - Nanotechnology: 53%
   - Adult stem cell: 53%
3. The following technology has the potential to significantly improve physical health outcomes for dental implant patients:

- Tissue engineering: 38%
- Growth and differentiation: 27%
- Nanotechnology: 28%
- Adult stem cell: 36%

4. The following technology has the potential to significantly improve quality of life outcomes (e.g., function) for dental implant patients:

- Tissue engineering: 66%
- Growth and differentiation: 56%
- Nanotechnology: 33%
- Adult stem cell: 47%

5. The potential benefit of the following technology will justify its estimated cost:

- Tissue engineering: 48%
- Growth and differentiation: 57%
- Nanotechnology: 58%
- Adult stem cell: 46%
6. Tissue engineering has the potential to have a significant impact on dental implant therapy in:

![](image1)

7. Growth and differentiation technology has the potential to have a significant impact on dental implant therapy in:

![](image2)

8. Nanotechnology has the potential to have a significant impact on dental implant therapy in:

![](image3)

9. Adult stem cell technology has the potential to have a significant impact on dental implant therapy in:

![](image4)

**OUTCOMES**

1. When assessing a technology for implant therapy, it is important to include more than just standard clinical measures of implant survival/success (i.e., implant in function, no mobility, no pain, no infection, and minimal bone loss).

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4%</td>
<td>5.33%</td>
<td>6.67%</td>
<td>30.67%</td>
<td>53.33%</td>
</tr>
</tbody>
</table>
2. It is important to identify and measure outcomes of implant based therapy that include life quality, function (as rated by the patient), cost, and preference.

![Bar chart showing the distribution of responses to the statement about identifying and measuring outcomes.]

3. A consensus on the appropriate outcomes for implant therapy should be developed.

![Bar chart showing the distribution of responses to the statement about developing a consensus on outcomes.]

**ADDED QUESTIONS**

The participants were also polled twice to rank indications related to dental implant therapy that should be the focus of future research to enhance clinical outcomes. The results of the polling indicated that vertical ridge augmentation and the prevention and treatment of peri-implantitis are priority areas. These two clinical challenges should be strongly considered by the AO in its strategic planning as topics for future workshops to identify those therapies and areas of research that would enhance the long-term success of dental implants.

**1. The highest priority to address is:**

<table>
<thead>
<tr>
<th>Indication</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socket augmentation</td>
<td>6.58%</td>
</tr>
<tr>
<td>Vertical ridge augmentation</td>
<td>38.16%</td>
</tr>
<tr>
<td>Lateral ridge augmentation</td>
<td>3.95%</td>
</tr>
<tr>
<td>Sinus augmentation</td>
<td>0%</td>
</tr>
<tr>
<td>Soft tissue esthetics</td>
<td>10.53%</td>
</tr>
<tr>
<td>Implant prosthetics</td>
<td>11.84%</td>
</tr>
<tr>
<td>CAD/CAM technology</td>
<td>2.63%</td>
</tr>
<tr>
<td>Management of peri-implant disease</td>
<td>26.32%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**2. Of these, which has the highest priority to address with regard to techniques, materials, and outcomes assessment? (multiple choice)**

<table>
<thead>
<tr>
<th>Indication</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical ridge augmentation</td>
<td>48.65%</td>
</tr>
<tr>
<td>Management of peri-implant disease</td>
<td>51.35%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>