Safety and Pharmacokinetics of BXQ-350 in a Phase 1a and 1b Trial of Solid Tumors and High-grade Glioma.

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Background: BXQ-350 is composed of the multifunctional, lysosomal-activator protein Saposin C and phosphatidylserine lipid with demonstrated antitumor effects in vitro and in vivo. In this abstract we update the safety and pharmacokinetic (PK) profile based on an ongoing Phase 1 trial. Methods: BXQ-350 was administered in a Phase 1a dose-escalation trial (NCT02859857), and an ongoing Phase 1b trial (data cut off at max of 6 cycles, 01DEC2018) to refractory solid tumor/high-grade glioma patients (pts). In Phase 1a, pts received escalating IV BXQ-350 doses of 0.7, 1.1, 1.4, 1.8, or 2.4 mg/kg on days 1, 2, 3, 4, 5, 8, 10, 12, 15, 22 (cycle 1), 29 (cycle 2), and thereafter 28-day cycles. PK was assessed over a 24-hr period following the first dose. The Saposin C level was analyzed by ELISA and PK parameters were calculated using noncompartmental methods. Results: The 1a cohort of 18 pts (age 24-69) had a median of 3 cycles and 1b cohort of 20 pts (age 31-80) had median of 2 cycles with no treatment-related serious adverse events to date. Moderately severe related adverse events (AEs, n case, n events) are reported with serious non-related events. The most common treatment-related AE was fatigue (2 at dose 1.1, 2 at 1.8, 1 at 2.4mg/kg and 3 in 1b), at 2.4 mg/kg, 1 pt had moderate blood pressure elevation. Exposures in the 1.4 and 1.8 mg/kg cohorts were less than dose-proportional, likely due to higher clearance in those groups. The overall mean clearance and half-live values were 66.8 (mL/kg/h) and 4.03 h, respectively. Conclusions: BXQ-350 has had no serious related AEs during dose-escalation or in the on-going trial supporting a tolerable safety profile at 2.4 mg/kg.

<table>
<thead>
<tr>
<th>Dose mg/kg</th>
<th>Phase 1a</th>
<th>Phase 1b</th>
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<tbody>
<tr>
<td>0.7</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td>N</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

| Age, mean (SD) | 64.0 (-) | 53.3 (25.42) | 58.3 (1.53) | 48.7 (7.51) | 54.1 (13.77) | 56.8 (12.69) |
| F:M           | 0:1      | 0:3       | 2:1       | 1:2       | 4:4       | 10:10       |
| Adverse Event | 1, 16    | 3, 60     | 3, 38     | 3, 34     | 8, 112    | 20, 201     |
| (n case, n event) |         |          |           |           |           |            |
| Moderate severity related | 0, 0  | 3, 5      | 1, 1      | 1, 3      | 2, 3      | 6, 17      |
| Serious non-related | 0, 0   | 1, 1      | 1, 2      | 0, 0      | 1, 2      | 6, 12      |

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<thead>
<tr>
<th>Pharmacokinetic Parameters</th>
<th>Phase 1a</th>
<th>Phase 1b</th>
</tr>
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<tbody>
<tr>
<td>AUC_{inf} (h*ng/mL)</td>
<td>10240</td>
<td>18740±4751 19700±5160 23710±2059 53953±17763 43856±18649</td>
</tr>
<tr>
<td>T_{1/2} (h)</td>
<td>5.16</td>
<td>4.59±1.23 3.75±0.29 3.58±0.26 3.69±0.83 4.18±0.838</td>
</tr>
<tr>
<td>CL (mL/h/kg)</td>
<td>68.38</td>
<td>61.78±18.34 74.44±19.56 76.29±6.71 48.39±14.32 70.93±59.03</td>
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</tbody>
</table>
Title:
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Is this a late-breaking data submission?
No

Is this abstract a clinical trial?
Yes

Is this clinical trial registered?
Yes

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Clinicaltrials.gov

Registration Number:
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Bexion Pharmaceuticals

Are there additional sources of funding for your study?
No

Are patients still being accrued to the trial reported in this abstract?
Yes

Would like to be considered for a Merit Award:
No

Have the data in this abstract been presented at another major medical meeting?
No

Has this research been submitted for publication in a medical journal?
No

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N/A

Continued Trial Accrual:
Yes

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