Figure 1
Alcohol priming induces reinstatement of alcohol place preference
Figure 2
mTORC1 is activated in the nucleus accumbens during reinstatement of alcohol place preference

#### a

**Priming** → **60 min** → **Dissection** → **WB**

#### b

![Diagram of brain regions: DLS, DMS, and NAc]

#### c

**Nucleus Accumbens**

<table>
<thead>
<tr>
<th>Cond:</th>
<th>Sal</th>
<th>Alc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priming:</td>
<td>Sal</td>
<td>Alc</td>
</tr>
</tbody>
</table>
| **pS6** | ![Graph of pS6/S6 ratio](image)
| **S6** |
| **GAPDH** |

#### d

![Graph showing pS6/S6 ratio vs. reinstatement score](image)

$r^2=0.49$  
P=0.05

#### e

**Dorsomedial Striatum**

<table>
<thead>
<tr>
<th>Cond:</th>
<th>Sal</th>
<th>Alc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priming:</td>
<td>Sal</td>
<td>Alc</td>
</tr>
<tr>
<td><strong>pS6</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S6</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GAPDH</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### f

**Dorsolateral Striatum**

<table>
<thead>
<tr>
<th>Cond:</th>
<th>Sal</th>
<th>Alc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priming:</td>
<td>Sal</td>
<td>Alc</td>
</tr>
<tr>
<td><strong>pS6</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S6</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GAPDH</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Figure 2: mTORC1 is activated in the nucleus accumbens during reinstatement of alcohol place preference.
Figure 3
mTORC1 activation following priming-induced reinstatement of alcohol-CPP is restricted to the NAc shell

(a) 30 min
Reinst.

(b) NAc
shell
core

(c) Nucleus Accumbens shell
Cond: Sal | Alc
Priming: Sal | Alc
pS6
NeuN
Merge

(d) $r^2=0.20$
P<0.05

(e) Nucleus Accumbens core
Cond: Sal | Alc
Priming: Sal | Alc
pS6
NeuN
Merge
Figure 4
Systemic administration of the mTORC1 inhibitor Rapamycin prevents reinstatement of alcohol place preference
Figure 5
CRMP2 protein level are increased in the nucleus accumbens following priming-induced reinstatement of alcohol place preference.
Figure 6
Systemic administration of the CRMP2 inhibitor Lacosamide prevents reinstatement of alcohol place preference

(a) Pre-treatment: Veh or Lacosamide → Priming + Reinst. +

(b) CPP score (%)

Cond: Sal, Alc
Priming: Post-acq., Post-ext.
Test: Sal, Alc

Treatment: Veh, LCM

(c) Distance travelled (cm)

Veh, LCM