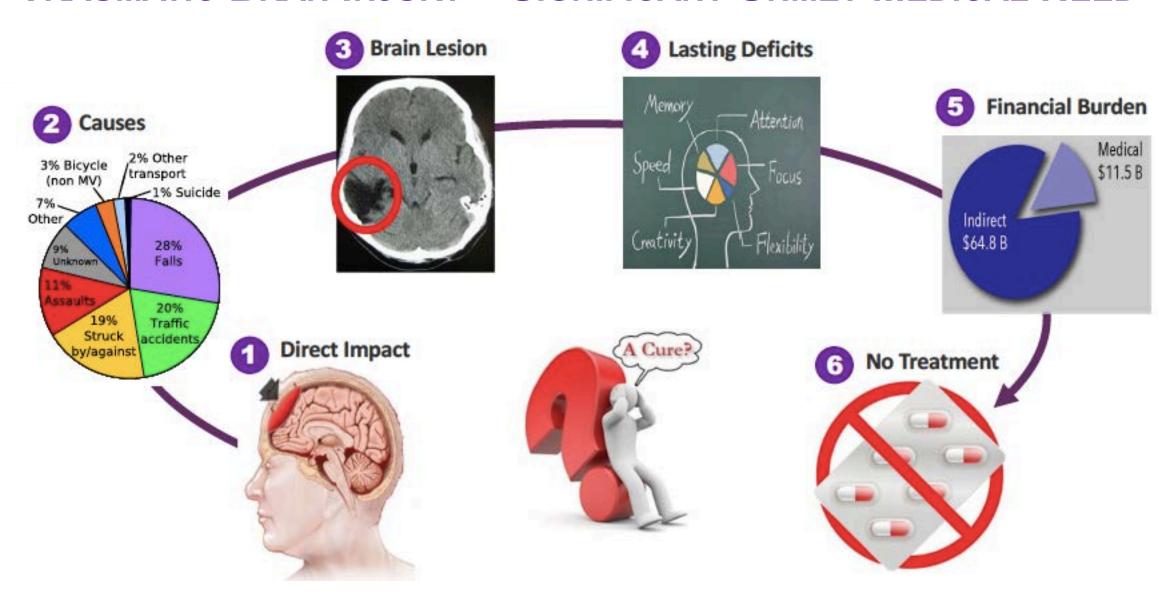
# INFLAMMATION ANTAGONIST FOR THE TREATMENT OF TRAUMATIC BRAIN INJURY (TBI)



## TRAUMATIC BRAN INJURY - SIGNIFICANT UNMET MEDICAL NEED





## ALSP Provides a Solution for the Treatment of TBI: Inhibition of Cathersin B Prevents Inflammasome Activation

TBI Cathepsin B Inflammasome Inflammation Activated Activated Cognitive/Motor deficits





Inflammasome Blocked



Nerve cell survival
Small brain lesion volume
Cognitive/Motor preservation



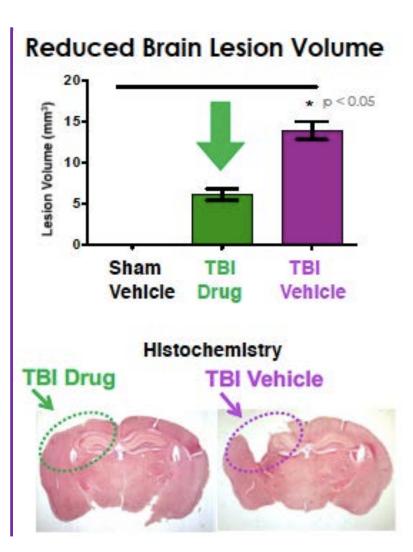
## CATHEPSIN B INHIBITOR IS EFFICACIOUS IN TBI MOUSE MODEL:

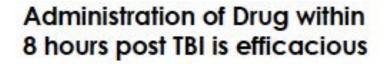
## Single Dose < 8 Hours Following TBI, Efficacy at 7 Days

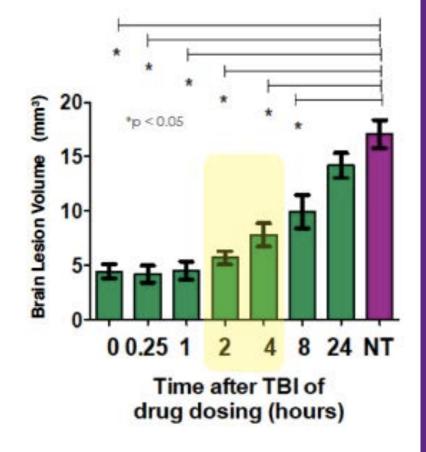
## Efficacy Parameters:

- Preserved neuromotor function
- Preserved neuronal survival
- Reduced brain lesion volume

Hook et al (2014) J Neurotrauma









## INTELLECTUAL PROPERTY - CATHEPSIN B INHIBITORS

#### **US Patents**

- Status issued
- US10,022,418 (08/06/10)
- Claims
  - Compounds
  - Composition
  - Formulations



## TBI MARKET SIZE (US, ANNUAL)

#### **Initial Label**

Moderate TBI

~3,000,000 pts. SAM ~473,000 pts. TM ~20,000

Head Injuries, ER/Trauma Dept. visits



Hospitalization



Moderate TBI

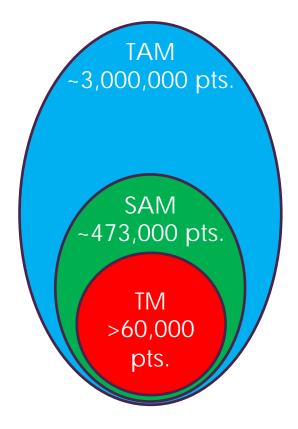
TM ~\$2.8B

Mild-Severe TBI

TM >\$8.4B

#### **Label Extension**

Mild-Severe TBI





Est. treatment cost per patient = \$140,000

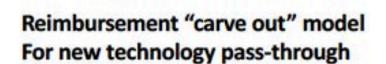


### RAPID ADOPTION OF ALSP'S TREATMENT BY NEUROSPECIALISTS



Emergency Room / Trauma Center guidelines (P&T Committees)

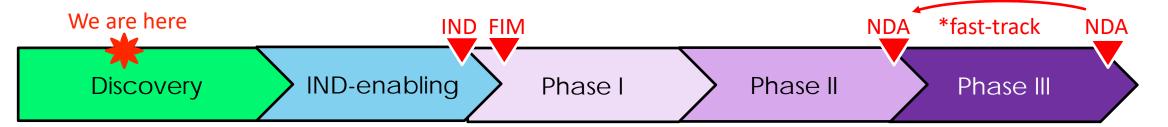
FOUNDATION





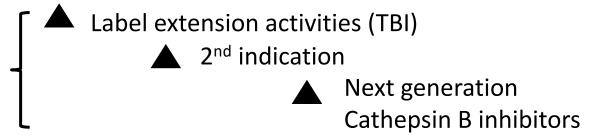
### DEVELOPMENT PLAN - BIG PICTURE

#### **Status**



#### **Next Steps**

Additional opportunities and monetization





## MINIMAL / NO COMPETITION



Inflammasome inhibitors, non-TBI indications



## **SUMMARY**

Item	Take Home Messages
Indication	Traumatic Brain Injury (TBI); significant unmet medical need
Therapeutic Strategy	Inhibit Cathepsin B, prevent inflammasome activation
Preclinical Efficacy	<ul> <li>Reduced brain lesion volume; neuron and brain tissue survival; preserved motor, behavioral, cognitive function</li> </ul>
Management Team	<ul> <li>Expertise in Pharma R&amp;D, Cathepsin B, inflammasome, traumatic brain injury</li> </ul>
Market	<ul> <li>Significant market size; potential &gt;\$B/year revenue; rapid adoption plan</li> </ul>
Development Plan	<ul> <li>Calculated timeline and budget with additional next steps and monetization</li> </ul>