

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



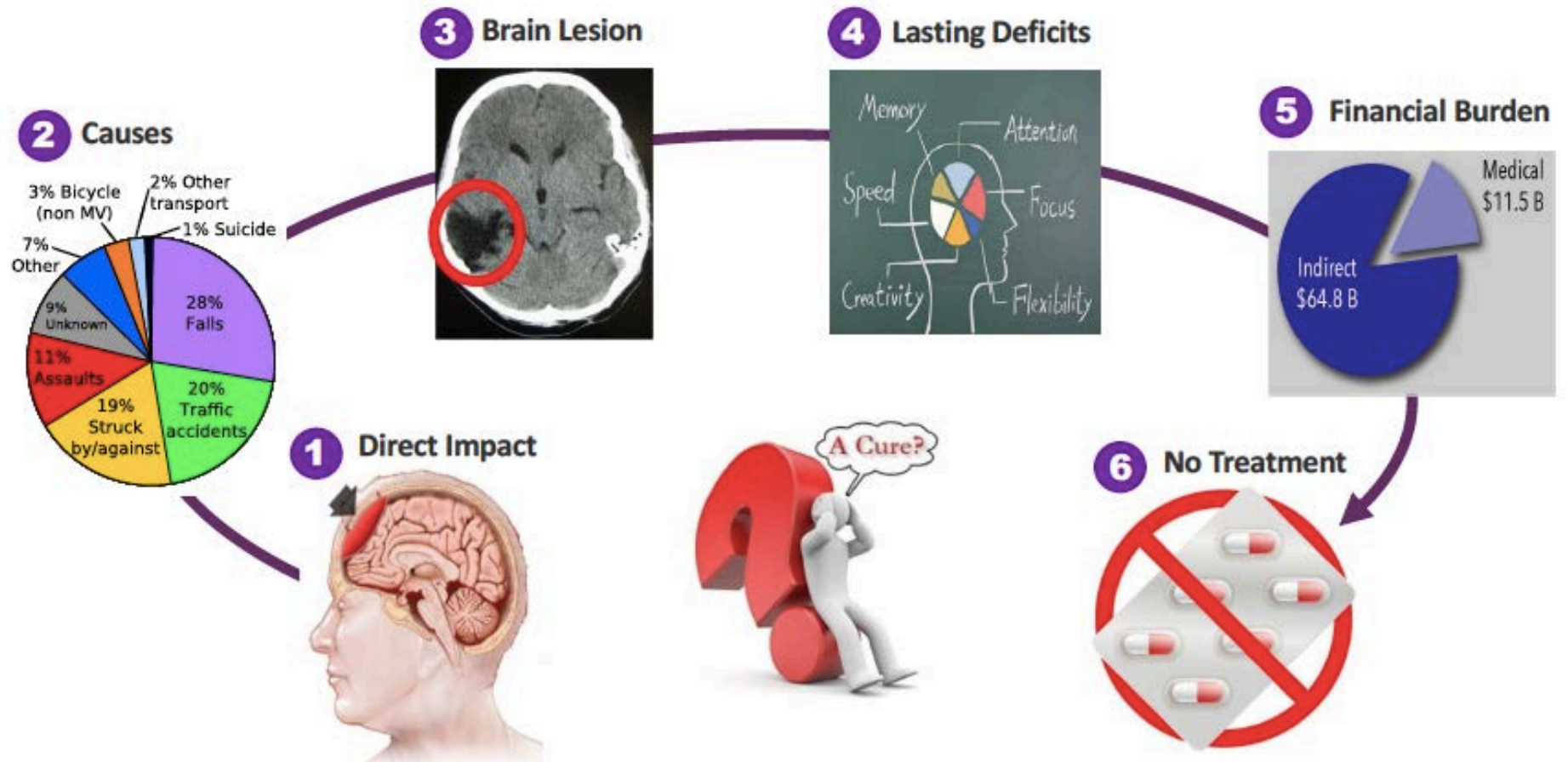
Steve Jacobsen, PhD
CEO/CSO, ALSP Inc.

201-981-4916

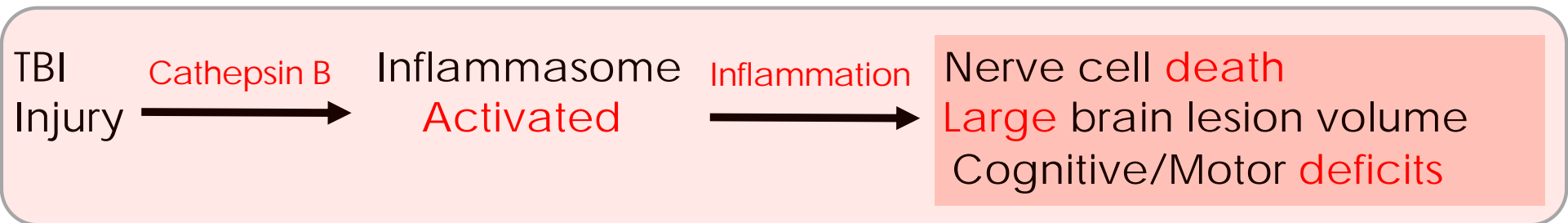
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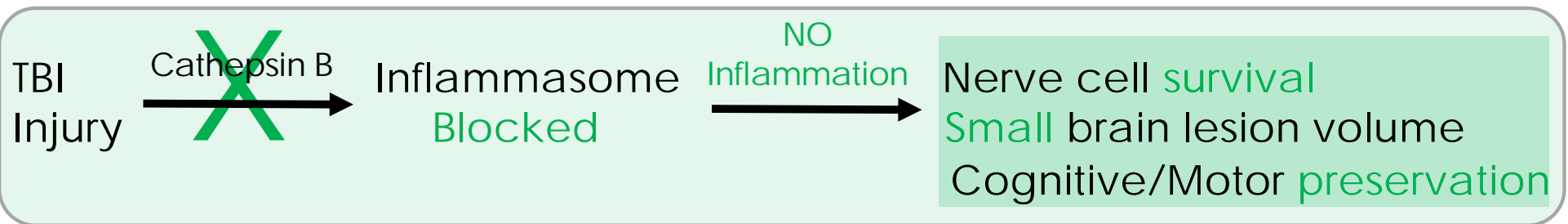
TRAUMATIC BRAN INJURY – SIGNIFICANT UNMET MEDICAL NEED



ALSP PROVIDES A SOLUTION FOR THE TREATMENT OF TBI: INHIBITION OF CATHEPSIN B PREVENTS INFLAMMASOME ACTIVATION



ALSP Inc. Treatment



CATHEPSIN B INHIBITOR IS EFFICACIOUS IN TBI MOUSE MODEL: SINGLE DOSE < 8 HOURS FOLLOWING TBI, EFFICACY AT 7 DAYS

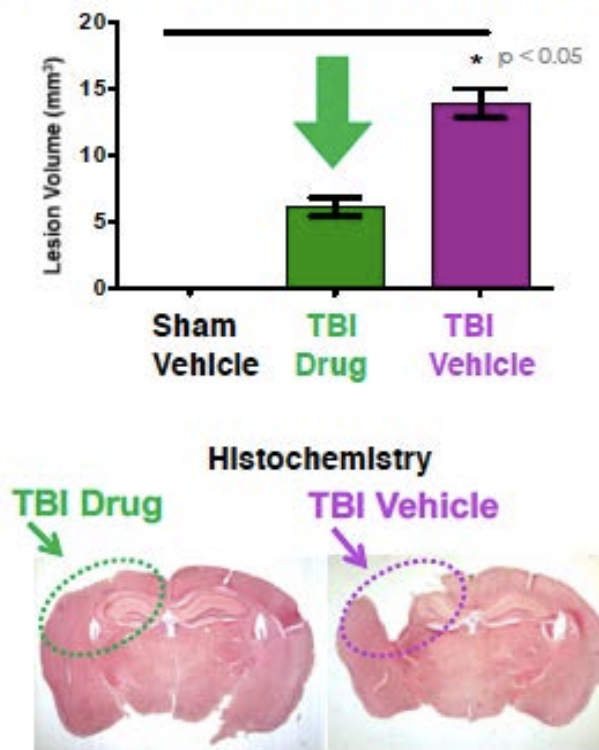
Efficacy Parameters:

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

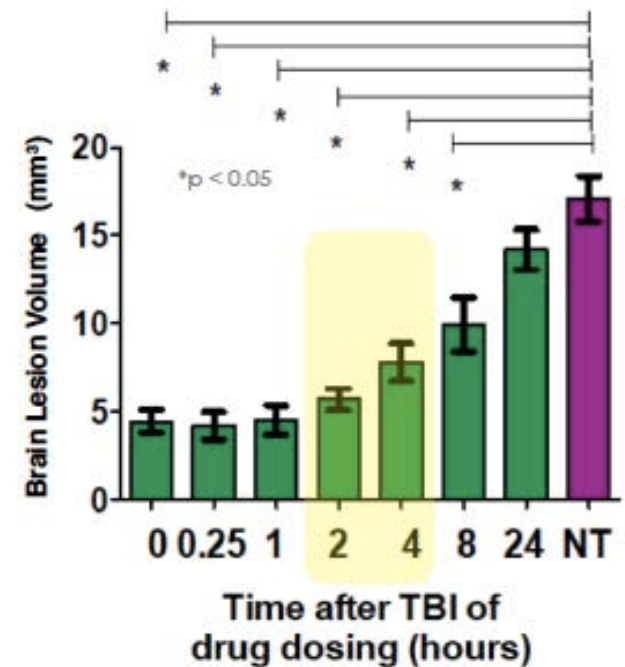
Hook et al (2014) J Neurotrauma



Reduced Brain Lesion Volume



Administration of Drug within 8 hours post TBI is efficacious



INTELLECTUAL PROPERTY – CATHEPSIN B INHIBITORS

US Patents

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

EU Patents

- Status - issued
- EP2921486 (08/06/10)
- EP3296295 (08/06/10)
- Claims
 - Compounds
 - Medicaments

Additional claims pending for ongoing expansion of patent estate to reinforce IP strategy

ALSP LEADERSHIP TEAM

Steve Jacobsen, PhD
C-Level (CEO/CSO)

Pharma R&D, Neurodegeneration,
Inflammasome



Greg Hook, JD, PhD
PI (Co-Founder)

Cathepsin B



Campbell & Flores, LLC

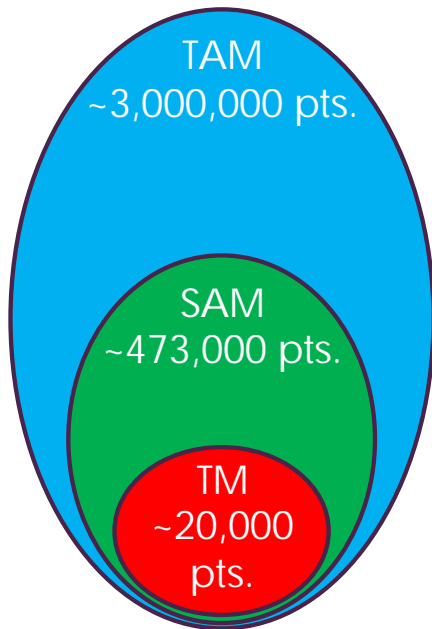
Dallas Hack, MD (Col., ret.)
Industry Expert (CMO)

Traumatic Brain Injury



TBI MARKET SIZE (US, ANNUAL)

Initial Label
Moderate TBI



Head Injuries,
ER/Trauma Dept. visits

↓ CT Scan (+)

Hospitalization

GCS = 9-12

Severity
rating

GCS = 5-13

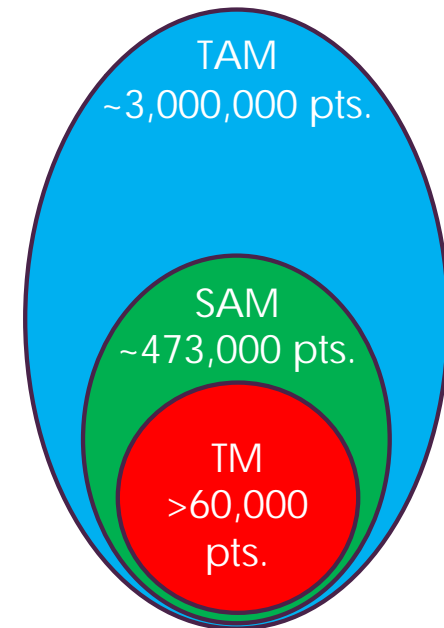
Moderate TBI

Mild-Severe TBI

TM ~\$2.8B

TM >\$8.4B

Label Extension
Mild-Severe TBI



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



Non-Confidential

11/04/2019

RAPID ADOPTION OF ALSP'S TREATMENT BY NEUROSPECIALISTS

Neurotrauma Emergency
Treatment Trials (NETT) network



Emergency Rooms / Trauma Centers



Improved Patient Prognosis



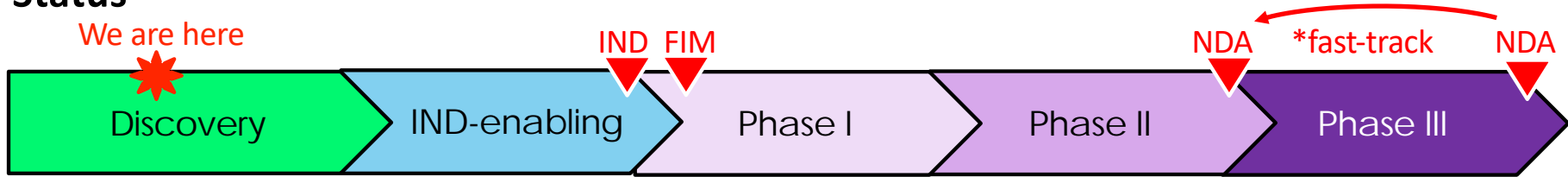
Emergency Room / Trauma Center
guidelines (P&T Committees)



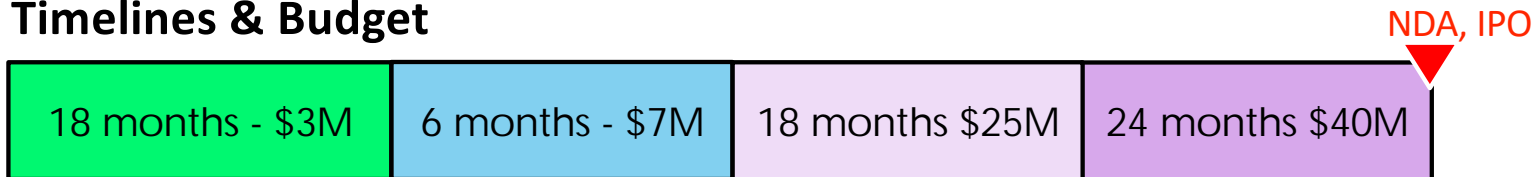
Reimbursement "carve out" model
For new technology pass-through

DEVELOPMENT PLAN – BIG PICTURE

Status



Timelines & Budget



Next Steps

Additional opportunities and monetization

- ▲ Label extension activities (TBI)
- ▲ 2nd indication
- ▲ Next generation Cathepsin B inhibitors

MINIMAL / NO COMPETITION

<p>Cathepsin B inhibition</p>	
<p>Traumatic Brain Injury (TBI)</p>	 
<p>Inflammasome Inhibition</p>	     

Inflammasome inhibitors, non-TBI indications

SUMMARY

Item	Take Home Messages
Indication	<ul style="list-style-type: none">• Traumatic Brain Injury (TBI); significant unmet medical need
Therapeutic Strategy	<ul style="list-style-type: none">• Inhibit Cathepsin B, prevent inflammasome activation
Preclinical Efficacy	<ul style="list-style-type: none">• Reduced brain lesion volume; neuron and brain tissue survival; preserved motor, behavioral, cognitive function
Management Team	<ul style="list-style-type: none">• Expertise in Pharma R&D, Cathepsin B, inflammasome, traumatic brain injury
Market	<ul style="list-style-type: none">• Significant market size; potential >\$B/year revenue; rapid adoption plan
Development Plan	<ul style="list-style-type: none">• Calculated timeline and budget with additional next steps and monetization
Intellectual property	<ul style="list-style-type: none">• Patents issued in US and EU; additional patents pending

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