*Include 3 bullets (< 30 words total) per slide – the most important messages associated with the particular slide*

Team name: Astrodepressants

Date updated: 10/10/2019

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| --- | --- |
| S1: Title& Elevator Pitch/Headline | * Antidepressants Targeting Astrocytes
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| S2: The problem and who has it | * 50% of people with depression do not respond to current antidepressants.
* Current generic and branded antidepressants take 3 weeks to exert their effects, often requiring the prescription of other drugs.
* All drugs in the market target neurons but there are no drugs targeting other brain cells.
* NMDAR antagonist Ketamine has demonstrated rapid antidepressant effects, but side effects and abuse potential limit broad utility
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| S3: The solution  | * Developing antidepressants that target Astrocytes, which are brain cells that activate neurons by releasing neurotransmitters into synapses.
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| S4: Product (how it addresses the problem) | * Selectively reducing astroglial release of neurotransmitters results in a decrease in NMDAR activity and antidepressant effects, which are as fast as ketamine´s but without its side effects.
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| S5: Technology | * Small molecule (Rx3B) which binds to the target protein, has effects *in vitro* at nM range and induced antidepressant effects when administered systemically in rats that underwent chronic restraint stress.
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| S6: Competing approaches | * Esketamine is a version of ketamine that can be administered nasally. It has been approved by the FDA recently, but still requires to be administered by a doctor.
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| S7:Traction | * Funding: $700K in non-dilutive grants.
* We have published over 7 papers on the role of our target in psychiatric disorders, including depression, anxiety and memory.
* We have setup active collaborations on this topic with several labs in Chile, Belgium, Germany and France.
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| S8:Team | **Investigators:*** Dr. Jimmy Stehberg (*in vitro*, *in vivo* models).
* Dr. Felipe Simon (*in vitro* screening).
* Dr. Danilo González (In sillico work; small molecules).

**Collaborators:*** Fraunhofer IME, Germany.
* UGhent, Belgium (Luc Leybaert).
* KULeuven, Belgium (Geert Butynck).
* UDD, Chile, (Mauricio Retamal).

**Advisors:** * Nancy Levy
* Francisco Chiang
* Amanda Wagner
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| S9:Closing |  |