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

Team name: EPP Light Dosimeter

Date updated: 12/1/2019

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| --- | --- |
| S1: Title& Elevator Pitch/Headline | * Title: Smartphone-based digital devices for quantitative disease monitoring in erythropoietic protoporphyria
* Headline: If you’re like most people, you enjoy the sun, and you miss it if it’s gone for days or months at a time. But did you know that some people’s skin can’t tolerate sunlight?
* improve quality of life and bring new therapies to patients
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| S2: The problem and who has it | * EPP 1:100,000, but multiple forms of photosensitivity. No biomarkers.
* Prolonged, untreatable pain, decreased quality of life
* Difficulty predicting and preventing symptoms
* No precise endpoints for clinical trials
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| S3: The solution  | * Digital biomarker
* Measure the exposure, the symptoms, and the biochemical response with a light dosimeter, symptom survey, and a fluorescence spectrometer, respectively.
* improve quality of life and provide quantitative endpoints for clinical trials
 |
| S4: Product (how it addresses the problem) | * The light dosimeter, SunSense, UV light exposure
* The fluorescence spectrometer, Labby, skin fluorescence
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| S5: Technology | * A visible light sensor: measure visible light not just UV
* A cutaneous spectrofluorometer: excitation and emission properties are specific for protoporphyrin.
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| S6: Competing approaches | * For clinical trials in EPP: light exposure diaries.
* The primary end point of the last trial completed in 2011 was the cumulative number of hours in direct sunlight between 10am and 6pm without pain over a period of 6 months.
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| S7:Traction | * Spark Grant, the Porphyrias Consortium grant, HTL
* SunSense and Labby.
* American Porphyia Foundation trainee and starting a satellite site of the Porphyrias Consortium.
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| S8:Team | * My supporting mentors at MGH are Irene Kochevar and David Christiani
* I have mentorship through the IDEA2 program and the Healthcare Transformation Lab.
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| S9:Closing | * **The goals:**guide patient exposure and quantitative endpoints for clinical trial data collection
* **Ways this will help patients:** improve quality of life and facilitate the approval of new medications for EPP and other forms of photosensitivity
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