

Team name: PAT-U-PAMI

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S1: Title & Elevator Pitch/Headline	<ul style="list-style-type: none"> ● Asthma is the most prevalent chronic respiratory disease worldwide, affecting more than 300 million people. It is the most common chronic disease in children, affecting 8-10% worldwide. ● Asthma treatment needs a repetitive injection (once in 2/3 weeks) of the Omalizumab drug. Hence, Our microneedle patch can perform better compared to existing hypodermic needles ● On the other hand, the inhalation technology is great but it is difficult to optimize in case of infants/children
S2: The problem and who has it	<ul style="list-style-type: none"> ● No permanent solution to treat or cure childhood asthma and symptoms can just be controlled with the right chronic treatment plan. ● The current hypodermic needle-based system for the new treatment, omalizumab, is painful and injection is susceptible to human error, infection and dosage error. ● Controlled delivery is difficult.
S3: The solution	<ul style="list-style-type: none"> ● Microneedles are potentially easy to produce, allow self-administration and high patient compliance as they cause no pain and no bleeding. ● Painless and safe drug administration, minimizing the risk of bleeding, infections, injuries. ● This delivery system favors therapy acceptance among children and also parents.
S4: Product (how it addresses the problem)	<ul style="list-style-type: none"> ● Microneedle can able to deliver precisely in a painless manner. ● Well suitable for the kids/infants with needle phobia. ● Microneedle-based omalizumab administration increases the effectiveness of targeting skin resident-immune cells could reduce the drug dose as well as the period of treatment.
S5: Technology	<ul style="list-style-type: none"> ● Microneedle fabrication. ● Testing suitability of the system for infant skin. ● Study of drug dosage requirements.
S6: Competing approaches	<ul style="list-style-type: none"> ● Providing an infant/kid acceptable approach to delivering the drug precisely. ● Reduced needed omalizumab dosing. ● Continuous drug delivery.
S7: Traction	<ul style="list-style-type: none"> ● Increasing number of patents related with the fabrication of microneedle arrays for the painless drug delivery. ● 54 microneedle-related with clinical trials. ● Microneedles are objects of research since the mid-90's.
S8: Team	<ul style="list-style-type: none"> ● Vinaya Kumar K B ● Veronica Miguel
S9: Closing	<ul style="list-style-type: none"> ● Microneedle-based omalizumab delivery is a safer promising strategy for the treatment of infant asthma. ● The effect of drug dissolution/effectiveness in skin layers (microneedle-based delivery) is the same compared to hypodermic needle-based delivery. ● Acceptance among the doctors and patients for microneedle based-omalizumab delivery.