Background

Intra-cortical Visual Prosthesis Team of IIT

- **Development of technology**
- **Safety and Functional Testing**

- **Problem: How to proceed with human implantation of the device?**

Goals of the Project

To create a comprehensive, scientifically and morally justified framework for the selection of volunteers

To assess the current state of the proposed technology and suggest improvements that would better prepare it for human implantation

Organization of the Team

David Gorski
Team Leader

Mary DeRoo
Selection SubTeam Leader

Aanchal Taneja
Recommendations SubTeam Leader

Electrical/Computer Engineering

Biomedical Engineering

Biochemistry

Mechanical /Aerospace Engineering

Chemical Engineering

Psychology

David Gorski

Alex Leasenby

Harry Li

Hanna Pyrkh

David Bern

Shanyl Chen

Tom Kelley

Maham Subhani

Progress Towards Goals

- **Team building**
- **Analyzed and defined the scope of the problem**

- **Researched the current progress of the sponsor**
- **Reviewed sponsor's conformation to FDA guidelines**

- **Further broke down our goals into specific objectives**
- **Went on a tour of the Chicago Lighthouse**

Major Obstacles Encountered

An insufficient amount of similar past examples of implants exist

Ethical considerations change depending on the technology

Understanding the application of the equipment requires in-depth knowledge

Group members are inexperienced with neurosurgical dilemmas

Anticipated Major Challenges

Difficulty defining boundaries and justifying the importance of one criterion over another

Possibility of being too broad and unfocused

Difficulty in merging the two subteams' solutions into a final product

Avoiding bias from the sponsor

Where We Are Headed

Making a positive step towards the assessment of human implantation by:

1. Converging our research into a framework for subject selection

2. Providing a scientific analysis of what the sponsor has done and needs to do next

3. Compile the collective research into a final report