Team: Interpenetrating networks for delivery systems

Team Members: Ashley Huth- Team Leader
Claire Flanagan- Communicator
Jon Sass- BSAC
Adam Rieves- BWIG

Client: Professor John Kao
UW School of Pharmacy & Department of Biomedical Engineering
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Phone: 263-2998
Email: wjkao@pharmacy.wisc.edu

Problem Statement:
Interpenetrating networks are a type of biomaterials that polymerize in situ and have been used in drug delivery, wound healing, and tissue engineering applications. This design project involves the development of novel delivery mechanisms that should be clinically easy to use with improved storage life.

Summary of Accomplishments
• Researched individual topics
• Made sketches of possible designs and mechanisms for compartmentalization, stirring mechanism, and spraying procedure
• Met Tuesday to formulate design matrix criteria and grading scale
• Shared preliminary design ideas

This Week’s Goals
• Combine information to solidify the three different designs
• Rank three designs in design matrix
• Start working on mid semester presentation and paper
• Possibly do more testing with gelatin solution from last semester
• Set up meeting with Professor Kao to discuss design ideas and research involving modification of gelatin
• Try different protocols for creating cold water soluble gelatin
• Test “new” gelatin’s ability to create an IPN successfully
### Activities

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Activity</th>
<th>Time</th>
<th>Running Total</th>
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</thead>
<tbody>
<tr>
<td>Claire</td>
<td>Background Research, Patent Searches, Team Meeting Friday, Team Meeting Tuesday</td>
<td>3.5 hours</td>
<td>14 hours</td>
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<tr>
<td>Ashley</td>
<td>Background Research, Patent Searches, Team Meeting Friday, Team Meeting Tuesday, Progress Report</td>
<td>3.5 hours</td>
<td>14 hours</td>
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<tr>
<td>Jon</td>
<td>Background Research, Patent Searches, Team Meeting Friday, Team Meeting Tuesday, BSAC Meeting</td>
<td>4 hours</td>
<td>14 hours</td>
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<tr>
<td>Adam</td>
<td>Background Research, Patent Searches, Team Meeting Friday, Team Meeting Tuesday, Updated Website</td>
<td>4 hours</td>
<td>14.5 hours</td>
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**Team Total** 15 hours 56.5 hours

### Project Timeline

#### Design
- **Design Brainstorming**
- **Preliminary Design**
- **Friday Team Meeting**
- **Research**

#### Deliverables
- **Progress Report**
- **PDS**
- **Mid Semester Paper**
- **Mid Semester Presentation**
- **End Semester Presentation**
- **End Semester Paper**

#### Meetings
- **Client**
- **Advisor**
- **Other**
- **Website**
- **BSAC**

- **Task**
  - **February**
  - **March**
  - **April**
  - **May**

- **Done**
- **Goal**
<table>
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<tr>
<th>Expenses</th>
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<tr>
<td>Product</td>
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<tr>
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<tr>
<td>Total Cost</td>
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