

Assessment rubric for proposal of approach to solving challenge

Area	Expert level	Examples
Content & Context: Problem Identification (2pts)	<ul style="list-style-type: none"> Objectives, motivation and relevance are clearly and persuasively established Translate challenge into problem that can be approached Background research into each area demonstrated 	<ul style="list-style-type: none"> Goal is to treat a skin graft to increase stiffness 5X Our approach is to use a model tissue and crosslink it. Very short background on hernia
Content: Background and Possible approach (2pts)	<ul style="list-style-type: none"> Persuades reader to recognize the validity of a point of view Accurate and complete explanation of key concepts & theory Approach to problem based on literature and sound rationale 	<ul style="list-style-type: none"> What model do you propose to use and why (e.g., crosslink skin, skin with absorbable mesh) What do you propose to do to treat the tissue? (increasing amounts of crosslinking then testing stiffness using mechanical testing – analyzing the trend in stiffness with crosslinking to determine the optimal level) Very short background on skin composition/mechanics, and stiffening treatments (only what information is relevant should be included)
Content: Possible methods (2pts)	<ul style="list-style-type: none"> Details of approach based on literature and sound rationale 	<ul style="list-style-type: none"> Specific methods that may be used and why (e.g., inflation to burst or uniaxial testing, calculate slope of stress-strain curve for stiffness) Concentrations vs length of treatment to obtain greater crosslinking
Reader's Needs / Document Flow (2pts)	<ul style="list-style-type: none"> Organization effectively assists reader in understanding information Sufficient detail is to allow the reader to understand the content and make judgments about it. Information presented clearly relates to the central report points The information presented in a smooth-flowing and logical fashion 	<ul style="list-style-type: none"> Statement of problem with hernia and goal - possible clinical treatments – possible treatments to skin. Background on skin and treatments to stiffen materials like skin, explanations of methods to assess treatments (i.e., mechanical tests) Info about skin composition and mechanics should be limited to what's relevant (e.g., are all of the components critical to your approach?, why are you discussing the uncrimping of collagen?)
Professional Standards (2pts)	<ul style="list-style-type: none"> Terms/jargon are properly defined when first used Sentences are complete, grammatical, and flow together easily Tone is objective with a full range of interpretation of results presented Others' opinions are referred to neutrally without attacking References in proper format 	<ul style="list-style-type: none"> Follow instructions e.g., 1 page!! Use professional tone rather than “the first thing I would do is...”, or “I think...”, “it is known that”, “research has shown” (who's? need to reference this) Note that there is a comma after “for example” (e.g.) and “in other words” (i.e.,) Use proper referencing <i>in the text</i> (author, date) (many forgot the date) and note that there is a period after ‘al’ but not ‘et’ (i.e., et al.) since al. is an abbreviation. If a web reference without author use a descriptive word from the title then put full link in references (minimize the number of web references please) Full references at <i>end</i> in author-date format in “References section” (not bibliography)
Questions	<ul style="list-style-type: none"> Questions asked should be clarifying questions for the “client” to help you understand the problem They should not be questions that the team needs to answer. 	<ul style="list-style-type: none"> Appropriate questions: How large is the defect? How long does the graft need to retain its enhanced properties? Are there cost or time constraints? Inappropriate questions: What are the mechanical properties of XX? How long are tissues treated with XX to change XX property