So Hi. My name is Crystal,both Eminem, the director of the Grant Writing Academy at Stanford, and I'm going to discuss tips for in strategies for writing your specific aims.,So why is your specific AIMS document so important?,Well, it's perfect for eliciting feedback, because it's the executive summary of your entire proposal.,As you're developing your proposal, your colleagues and mentors will be happy to provide feedback on your specific AIMS document, ,because it's not a big time investment, like reading the entire proposal.,So the specific AIMS document is critical to developing a 1st class proposal, because it's perfect for eliciting feedback.,And you want a lot of feedback.,So you can ensure the conceptual framework of your proposal is good.,As I mention, the specific aim should provide that conceptual framework over your proposal to its perfect roadmap as you write the rest of your proposal.,Equally important, your specific AIMS document must empower the reviewers with all the necessary information to fund your project after reading only the specific AIMS document.,So for these reasons and many more, the specific AIMS document is one of the most important documents of your proposal.,So what exactly are the instructions for the specific AIMS document?,Let's use NNAH, the National Institute of Health Instructions, as an example.,There a specific AIMS document is one page.,And hear the specific directions. State concisely the goals of the proposed research, and summarize expected outcomes, ,including the impact the results of the proposed research will exert on the research fields involved.,This is simply the specific objectives of the research proposed and e.g.,to test a state of hypothesis, create a novel design, solve a specific problem, ,challenge and existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology.,Now think for a minute. What are the key words and phrases?,Yes, so goals, expected outcomes, impact specific objectives. So there are really some key questions and ideas that should be conveyed on the specific AIMS document.,I've come up with four key questions that you need to answer in writing a compelling, specific AIMS page.,So 1st key question is, is the research question important?,This is really getting at the idea that there may be a particular gap in the knowledge base or a need that's holding your field back.,So if you were able to fill in that gap or address the need, then you can move your field significantly forward.,And more than just incremental steps, what is the overall goal?,This must fill in the gap, or need delineated By addressing the 1st question What it specifically will be done?,What are your specific research questions or aims?,What is your hypothesis? What are the expected outcomes and impact?,What is the return and investment of funding this research?,How this proposed research addressed the gap or need delineated?,By answering the 1st question. So hopefully you understand that, just like a machine or these gears, um,, if one of the answers to these questions isn't perfectly aligned, then you won't be able to have a really compelling, specific AIMS page.,So when answering these questions,, you really need to take a big picture look to make sure each of your answers to these questions are perfectly aligned with the other answers, in your responses to these four questions could become four really important parts to your specific AIMS page, and could be used to organize your specific AIMS document.,And we'll go into more detail in the next couple of slides about how you can use these four questions to organize your specific AIMS page into four sections or paragraphs.,So 1st, the introductory section of your specific aims.,Could should answer? Um Is the research question important?,So the 1st sentence, of course, needs to grab the attention of your reviewers.,You want to hook them immediately and highlight that your proposal will support the mission of the funding agency.,Then, after you have the attention of your reviewers, bring them all up to speed by summarizing the relevant current knowledge. This is important because your reviewers may not be familiar with all the complexities of your specific field,, so you need to provide a enough background to enable your reviewers to understand the knowledge gap in your field or the need that your proposal will address.,This statement is really important and will drive your proposal.,The knowledge gap or need statement should identify this critical bottleneck that slowing or stopping progress in your field.,So at the conclusion of this 1st section or paragraph, you should have the attention of your reviewers.,They should understand the proposed research areas relevant, and the knowledge gap, or unmet need, is important.,The 2nd paragraph needs to connect to that 1st section, which answers,a really big question Is the research important and funnel down to the specifics that are proposed?,So it's going from this idea of this big knowledge gap to the actual Levi specifics that you're proposing.,So one approach to do this in this section is to start still pretty big, with your big picture goal.,This could be a long term goal for your research program, or goal that relates directly to the funding agency s mission.,Next, narrow the focus and describe the objective of the proposed research.,Remember that your objective must directly address the knowledge gap or the need statement described in the 1st section.,Also, your objective must be obtainable, regardless of how the hypothesis tests.,Most funding agencies fund hypothesis driven research, so it's best to explicitly state your hypothesis.,This overall or central hypothesis, must be objectively testable and should be your prediction.,Or best bet, it's nice to bold ortalicize your hypothesis, because it's the climax of this section.,Lastly, describe your preliminary data, or other data that helped you formulate your hypothesis.,Now, what specifically will be done?,It's nice to have broad aims that are achievable regardless of how your hypothesis tests.,Um then briefly describe the methods that you'll use to test your hypotheses. What is the expected payoff? This is really getting at the return of investment of funding your project.,This needs to relate to the goals of the funding agency's mission.,That's really important. So e.g., if um, you're applying to a fellowship or career development award, ,and there the goal of the funding agency is to advance your career towards an independent scientist,, than that may be appropriate to include that information in the expected payoff on your specific AIMS page.,So here you can see how these four questions can be formulated into four key sections, or paragraphs, of your specific AIMS page.,So let's look at an example.,Here's an example from a faculty member at Stanford.,And notice that the specific AIMS is divided into several different sections.,This faculty member is answering, is the question important?,In this 1st paragraph, you can see she's ending that 1st paragraph with a clear statement of the knowledge gap.,Thus, there is a critical need to standardize how donor hearts are evaluated and accepted for transplantation.,There's a clear statement of the knowledge gap, or need, that is going to drive this proposal.,Next, she's funneling down by stating her long term goal, stating her central hypothesis, ,which she is atalicized and underline, and then um and then adds additional information, so she has this funnel down effect to get to the specifics of her proposal.,She's using a broad aim and then several working hypotheses to describe what exactly shall be the different approaches that she will take.,And then she is concluding the specific aimes page with a short discussion of what is the expected payoff.,It's actually really nice to end the specific AIMS section with this and statement, because it leaves the positive impact um as the reviewer is ending the specific aim's page.,So you can see how she's answered these four questions in a very logical approach, and it provided a nice organization, a structure to her specific AIMS page.,Now, answering the questions in this specific order isn't the only approach to writing effective, specific AIMS page. So let's look at it another example.,Here's an example that's available from the NH website.,It's for Graduate fellowship in f 31.,And you can see the structure of this specific AIMS page is quite different.,Here they're using the 1st part of this 1st paragraph to answer the question, is it the question important?,They have the knowledge gap statement, um in the middle of that pair that section.,Then they have the overall goal delineated, UM in the 2nd part of that 1st paragraph.,And they have the hypothesis broken out a little bit.,It's nice to have the hypothesis clearly identified, um, uh, which provides that focus for your proposal?,And then the specifics are here.,They're using nice broad um, um, bolded aims.,They have, um, the specific approaches that they'll be taking um as well, highlighted.,And then the expected payoff is here.,So here is another example of a funded application that is answering these four critical questions, but it is taking a different approach in the order.,So in summary, the specific AIMS document must concisely answer the following,questions. So is the research question important?,That's compelling. Projects and proposals often tackle particular gaps in the knowledge base or need that, when addressed, significantly advanced the field.,What is the overall goal? So the overall goal defines the purpose of the proposal and must be obtainable regardless of how the hypothesis tests.,What specifically will be done attract the reviewer's interest using attention, getting headlines.,Describe your working hypothesis and your approach to objectively test the hypothesis, and then what are the expected outcomes and impact?,Described what the reviewers can expect after the proposal is completed, in terms of advancement to the field.,So to write a effective, specific AIMS, feedback is critical.,You need a wide audience providing feedback too, because your reviewers are likely to come from a wide background as well, so get feedback throughout the process.,Um in in the beginning, in the middle, in the end, really writing your specific aims. Should be an editor of process.

所以你好，我叫Crystal Botham，我是斯坦福大学格兰特写作学院院长。我将讨论撰写具体目标的技巧和策略。那么，为什么你的具体目标文件如此重要呢？好吧，它非常适合征求反馈，因为它是你整个提案的执行摘要。在你制定提案时，你的同事和导师会很乐意就你的具体目标文件提供反馈，因为这不是像阅读整个提案那样投入大量时间。因此，具体目标文件对于制定一流的提案至关重要，因为它非常适合征求反馈。而且你需要大量的反馈，这样你就可以确保你的提案的概念框架是好的。正如我所提到的，具体目标应该为你的提案提供概念框架，因此在你撰写提案的其余部分时，这是一个完美的路线图。同样重要的是，你的具体目标文件必须让审阅者在只阅读具体目标文件后获得所有必要的信息，为你的项目提供资金。因此，出于这些原因以及更多原因，具体目标文件是你的提案中最重要的文件之一。那么，具体目标文件的说明到底是什么呢？让我们以美国国立卫生研究院说明为例。他们的具体目标文件只有一页，以下是具体方向。简明陈述拟议研究的目标并总结预期结果，包括拟议研究的结果将对所涉研究领域产生的影响。简洁地列出拟议研究的具体目标。例如，为了检验陈述的假设，创建新颖的设计，解决特定问题，挑战现有的范式或临床实践，解决该领域进展的关键障碍，或者开发新技术。想一想，关键词和短语是什么？是的。因此，目标、预期结果、影响、具体目标。因此，在具体目标文件中，确实有一些关键问题和想法应该传达。在撰写引人入胜的具体目标页面时，我想出了四个关键问题，你需要回答这些问题。所以第一个关键问题是，研究问题重要吗？这实际上是在理解这样的想法，即知识库中可能存在特定的空白，或者需求阻碍了你的领域。因此，如果你能够填补这一空白或满足需求，那么你可以将你的领域向前推进，而不仅仅是渐进的步骤。总体目标是什么？这必须填补空白，或者需要通过解决第一个问题来划清界限。具体要做什么？你的具体研究问题或目标是什么？你的假设是什么？预期的结果和影响是什么？资助这项研究的投资回报率是多少？这项拟议的研究将如何通过回答第一个问题来解决所描述的差距或需求？因此，希望你明白，就像机器或这些齿轮一样，如果这些问题的答案之一不完全一致，那么你将无法有一个真正引人注目的特定目标页面。因此，在回答这些问题时，你确实需要从大局着眼，以确保这些问题的每个答案都与其他答案完全一致。你对这四个问题的回答可能会成为你具体目标页面的四个非常重要的部分，可以用来整理你的具体目标文档。在接下来的几张幻灯片中，我们将更详细地介绍如何使用这四个问题将你的特定目标页面组织成四个部分或段落。因此，首先，你的具体目标的介绍部分应该回答，研究问题重要吗？因此，第一句话当然需要引起审稿人的注意。你想立即吸引他们，并强调你的提案将支持资助机构的使命。然后，在你引起审稿人的注意之后，通过总结当前的相关知识，让所有人了解最新情况。这很重要，因为您的审稿人可能不熟悉您特定领域的所有复杂性。因此，您需要提供足够的背景信息，使审稿人能够了解您所在领域的知识差距或您的提案将要解决的需求。这句话非常重要，将推动你的提案。知识差距或需求陈述应找出阻碍或阻碍您所在领域进展的关键瓶颈。因此，在第一部分或第一段的结尾处，你应该引起审稿人的注意。他们应该理解拟议的研究领域是相关的，知识差距或未得到满足的需求也很重要。第二段需要与第一部分联系起来，该部分回答了一个非常大的问题，研究重要吗？然后仔细研究所提出的细节。因此，它从这种巨大的知识差距的想法变成了你提出的实际细节。因此，在本节中，做到这一点的一种方法是从大局目标开始。这可能是你研究计划的长期目标，也可能是与资助机构的使命直接相关的目标。接下来，缩小重点并描述拟议研究的目标。请记住，您的目标必须直接解决第一部分中描述的知识差距或需求陈述。此外，无论假设如何检验，您的目标都必须是可以实现的。大多数资助机构都为假设驱动的研究提供资金，因此最好明确陈述你的假设。总的来说，我们的中心假设必须是可客观检验的，应该是你的预测或最佳选择。将你的假设加粗或斜体很不错，因为这是本节的高潮。最后，请描述您的初步数据或其他有助于您制定假设的数据。现在，具体要做什么？无论你的假设如何检验，都有可以实现的广泛目标真是太好了。然后，简要描述您将用来检验假设的方法。预期的回报是多少？这实际上是在为你的项目提供资金的投资回报。这需要与供资机构使命的目标相关。这真的很重要。因此，举例来说，如果你正在申请奖学金或职业发展奖，而资助机构的目标是将你的职业生涯发展成为独立科学家，那么将这些信息包含在你的具体目标页面的预期回报中可能是恰当的。因此，在这里，您可以看到如何将这四个问题表述为特定目标页面的四个关键部分或段落。因此，让我们来看一个例子。以下是斯坦福大学一位教职员工的例子。请注意，具体目标分为几个不同的部分。这位教职员工在回答，这个问题重要吗？在第一段中。你可以看到她在第一段的结尾明确陈述了知识差距。“因此，迫切需要对捐赠者心脏的评估和接受移植的方式进行标准化。”是对推动该提案的知识差距或需求的明确陈述。接下来，她陈述了自己的长期目标，陈述了她的中心假设，用斜体和下划线表示，然后添加了更多信息。因此，为了了解她的提案的细节，她有这种向下漏斗的效果。她用一个广泛的目标和几个可行的假设来描述她将要采取的不同方法。然后，她在结束具体目标页面时简短地讨论了预期的回报是多少？实际上，用这句话结束具体目标部分真是太好了，因为它在审稿人结束具体目标页面时留下了积极的影响。因此，你可以看到她是如何用一种非常合乎逻辑的方法回答这四个问题的，并为她的具体目标页面提供了一个不错的组织结构。现在，按此特定顺序回答问题并不是撰写有效的特定目标页面的唯一方法。因此，让我们来看另一个例子。以下是美国国立卫生研究院网站上提供的示例。这是为F31的研究生奖学金准备的。你可以看到具体目标页面的结构完全不同。在这里，他们用第一段的第一部分来回答这个问题，这个问题重要吗？他们在该部分的中间有知识差距陈述。然后，他们在第一段的第二部分中描述了总体目标。而且他们稍微打破了这个假设。清楚地确定假设真是太好了，这为你的提案提供了重点。然后，细节在这里。他们使用的是漂亮的粗体目标。他们还重点介绍了他们将要采取的具体方法。然后，预期的回报就在这里。因此，这是另一个受资助申请的示例，它正在回答这四个关键问题，但它在顺序中采用了不同的方法。因此，总而言之，具体目标文件必须简洁地回答以下问题。那么研究问题重要吗？引人入胜的项目和提案通常可以解决知识库中的特定空白，或者需要这些空白在得到解决后大大推动该领域的发展。总体目标是什么？因此，总体目标定义了提案的目的，无论假设如何检验，都必须能够实现。具体要做什么？使用吸引注意力的标题吸引审稿人的兴趣，描述你的工作假设以及客观地检验假设的方法。那么，预期的结果和影响是什么？描述提案完成后，审阅者在进入该领域方面可以期待什么。因此，要写出有效的具体目标，反馈至关重要。您还需要广大受众提供反馈，因为您的审阅者也可能来自广泛的背景。因此，在整个过程中，从一开始、中间、最后，都要获得反馈。实际上，写出你的具体目标应该是一个反复的过程。这里有几个很棒的资源，可以进一步了解如何制定有效的具体目标。