Hi, my name is Crystal Bothham, and I'm the director of the Stanford Biosciences Grant Writing Academy, and I'm in a,discuss ten tips for getting started writing grants.,Okay, so why submit a research proposal?,There's a number of reasons why.,So one is that writing rigorously clarifies and deepens your thinking.,Also,,articulating research priorities will increase your productivity and impact.,And of course, developing and communicating your ideas is critical in all career paths.,Plus securing funding is an accomplishment and has positive career benefits.,So during the next couple of slides, I'm going to give you tips for how to get started writing your grant, now that you know that it's important that you do it at all career stages, OK?,So 1st, start early and gather critical information.,You want to compile a comprehensive list of all the funding opportunities that you can apply for.,Ask what your colleagues in peers are applying to.,Ask your mentors um for ideas as well.,Some institutions also compile lists of grants, including fellowships and career development awards, to find out if yours does.,Once you have a comprehensive list of funding opportunities you can apply for, gather critical information about those funding opportunities.,This includes the instructions as well as funded and unfunded examples.,Let's just look at an example of the nh n RSA Fellowship as an example of what type of information you might want to gather.,So 1st, you want to read the funding announcement in its entirety.,Here's the, just a screenshot of the funding announcement for the nih n RSA.,And this is just the 1st page of the funding announcement.,It's several pages long, and you want to read the entire document and understand what it's telling you.,And sometimes you have to follow website attachments and or find other documents.,So in short, you want to have all the information available to you.,Then identify what are the a review criteria for the funding agency that you're applying to and the application you're applying to. So for the N-A-H-N or I say there are five main review criteria.,Those include you, the applicant um, and their reviewers are looking at your record of research productivity, the candidate's potential for independent research in the future.,The mentor, co mentor and collaborators.,The reviewers are asking is their strong track record of mentorship, and they're evaluating if there's an adequate mentoring plan the research training plan.,Is the research significant, appropriate and feasible?,These are the types of questions your reviewers are looking at when they're considering the review the research training plan, then the training potential.,Is their training plan appropriate? A Will the plan contribute to the applicants?,A success And in the environment?,institutional commitment, um What is their commitment to the candidates?,A development into a scientist? And is their adequate resources available?,So you want to identify the review criteria so that when you're writing your application, ,you can make sure that you're making the points that the reviewers are looking for in terms of the review criteria.,Okay? You also want to understand the review process.,N-A-H has a really nice video about the NH peer review process, and it's called N-H Peer Review Revealed.,You can find it on youtube, and it provides a front row seat to the NH peer review meeting.,A lot of other funding agencies base their peer review process on on the NNA ages, so it's a nice, uh video to understand what a peer review process will look like.,You also want to learn about the internal policies and processes that your specific institution may have.,Sometimes applications need to be submitted internally before the sponsors deadline, ,and there's extra paperwork involved to make sure you find out about this these policies and processes early.,Okay, number two Create a game plan and write regularly.,Writing a compelling grant takes time, a lot of time, which is challenging to balance with a hectic laboratory schedule and other responsibilities. To reduce stress, divide the grant requirement into smaller tasks by creating a detailed timeline with goals or milestones.,Having a game plan with daily or weekly goals will also help you avoid procrastination.,Make sure you're writing regularly, daily or every other day.,To establish an effective writing practice, this will increase your productivity and reduce your anxiety, because writing will become a habit.,It's also important to make your writing time non negotiable, so other obligations or distractions don't impede your progress.,OK? No. Tip number three is to find your research niche.,So you need to have a deep awareness of your field, and you really want this um ability to understand your field and to be able to identify critical knowledge gaps or needs.,These ideas are bottlenecks in the field that if you were able to,fill in or address the need, then you could significantly move your field forward.,So compelling projects also often combined two unseemingly unrelated threads of work to challenge or shift the current field or clinical practice paradigm.,So it's important to have a broad familiarity with the wider scientific community as well.,You want to compemplate how the concepts and approaches in the wider scientific community could be extended to address the critical knowledge gap in your field.,So keep a list of questions or problems inherit to your field.,An update this list. After reading pure viewed papers, review articles, attending seminars and conferences,, narrow down and focus your list through discussions with your colleagues, mentors and key researchers in your field.,Of course, since you're applying to a grant, a fellowship or career development award,, make sure that your research that is being proposed is relevant and appropriate for the mission of the funding Opportunity.,Announcement Tip number four is to use your specific AIMS document as your roadmap.,The specific AIMS document is a one page description of your research plan during the project period. And we have another video that you can learn more about how to write a compelling specific AIMS page in in another video.,But briefly, your specific AIMS page must concisely answer the following questions Is the research question important?,So compelling projects often tackle a particular gap in the knowledge base that, when addressed, significantly advanced the field.,What is the overall goal? The overall goal must define 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.,What are the expected outcomes and impact?,Describe what the reviewers can expect after their proposal is completed in terms of advancement to the field.,So just like gears that I'm showing here, the specific aims a page and the answers to these questions must be specifically aligned.,Otherwise it it's not a very effective specific AIMS page.,So again, you can learn more text techniques for developing a one page executive summary of your research in the next a video um about specific aims.,Tip number five is build a 1st rate team team.,Science is a collaborative effort to address a scientific challenge that leverages the strengths and expertise of personnel trained in different fields.,The team approach is ideal for many scientific endeavors.,Um and um coordinated teams of investigators with diverse skills and knowledge, maybe especially helpful for studies of complex problems.,Cause the cross disciplinary approach to a team um science can accelerate scientific innovation and translation.,Building a 1st rate team is especially important for fellowships and crude development awards.,And this team um would include your mentor, your co mentor and members of your advisory team as well.,Tip number six is develop a complete research plan.,So see the video on communicating your research strategy for more information. So in short, the research plan is a narrative that describes a set of goals and how you were reach them.,So the 1st question that needs to be answered is, is there a need this is getting at the significance and background information of your project 2nd House?,Will the specific aims be accomplished?,This includes the methods and analyses that will be used.,What are the expected outcomes? What might go wrong, and how will it be managed?,And what are the alternative approaches?,How long will the project take?,Is it really feasible in the project time for this proposal, then what's next?,What are the future directions for this project?,How is it going to advance your field?,Tip number seven is Stop and get feedback.,Feedback is critical to developing a 1st class proposal.,You need a wide audience providing feedback, because your reviewers will likely come from diverse backgrounds as well.,Be proactive in asking for feedback from your colleagues and mentors.,Even non scientists can provide critical advice about the clarity of your writing when eliciting feedback.,Inform your reviewers of your specific needs.,So e.g. do you desire broader feedback on overall concepts or feasibility?,Or do you want advice on grammar and spelling?,Tip number eight Tell a consistent and cohesive story.,Applications are also often composed of numerous documents or sections.,Therefore it's important that all your documents tell a consistent and cohesive story.,Let's look at the nh n RSA as an example again.,So here is a list of the main documents of this application.,and then elaborate more on the long term goal in the Queer Development documents.,So each of these documents must tell a consistent story.,It's important to allow at least one to two weeks of time after composing the entire important application to review ,and scrutinize the story you tell and to ensure its consistent and cohesive.,Tip number nine is to follow specific requirements and proofread for error.,In readability, grants have specific formats and page requirements that must be strictly followed. Keep these instructions in their review critteria close at hand when writing and revising.,Applications that do not conform to the required formatting or other requirements may be administratively rejected before the review process.,So meticulously follow all the requirements and guidelines.,Proofread your almost final documents for errors and readability.,Errors can be confusing to reviewers.,Also, if the documents have many misspellings or grammar errors, your reviewers will question the ability of you to complete the proposed experiments with precision and accuracy.,Tip number ten Recycle and resament funding opportunity Announcements for various applications frequently have similar requirements, ,so it's fairly easy to recycle your application or resimit it to several different funding opportunities.,This can significantly increase your odds for success, especially if you're able to improve your application with each submission by tackling reviewers comments from a prior submission.,However, some sponsors limit concurrent applications to different funding opportunities.,To read the instructions carefully, you almost always want to resimit.,Submitting your proposal is like rolling the dice.,Some you lose and some you win.,But at 30% odds, it's not so bad to keep trying.,Okay, so here are the ten tips for writing proposals.,And these tips that we discuss today are broadly based on the ten tips from this paper, ten simple rules for writing a postoctural fellowship.

你好，我叫CrystalBotham，我是斯坦福大学生物科学补助金写作学院院长。我将讨论开始撰写补助金的10个小贴士。为什么要提交研究提案？原因有很多。第一，写作可以严格澄清和加深你的思维。此外，阐明研究优先事项将提高您的工作效率和影响力。当然，在所有职业道路中，发展和传达自己的想法都至关重要。另外，获得资金是一项成就，可以带来积极的职业收益。在接下来的几张幻灯片中，我将向你介绍如何开始撰写补助金的技巧，因为你知道在职业生涯的各个阶段都必须这样做。首先，尽早开始并收集关键信息。您想编制一份全面的清单，列出您可以申请的所有融资机会。询问你的同事和同事正在申请什么。也可以向你的导师询问想法。一些机构还会编制补助金清单，包括奖学金和职业发展奖励，因此请查看您的补助金是否有。有了可以申请的融资机会的完整清单后，请收集有关这些资助机会的关键信息。这包括说明以及有资金和无资金的示例。让我们来看一个美国国立卫生研究院NRSA奖学金的例子，以此来说明你可能想要收集什么类型的信息。首先，你要完整阅读融资公告。这只是美国国立卫生研究院NRSA资助公告的屏幕截图，而这只是资助公告的第一页。它长达几页，你想阅读整篇文档并理解它在告诉你的内容。有时你必须关注网站附件和/或查找其他文档。简而言之，您希望获得所有可用的信息。然后确定你申请的资助机构和你正在申请的申请的审查标准是什么。对于美国国立卫生研究院NRSA，有五个主要的审查标准。这些人包括你，即申请人。审稿人正在查看你的研究效率记录，以及候选人将来进行独立研究的潜力。导师、共同导师和合作者。评论者问，有良好的指导记录吗？他们正在评估是否有足够的指导计划。研究培训计划。这项研究是否重要、适当且可行？这些是您的审阅者在考虑研究培训计划时要考虑的问题类型。然后是训练潜力。他们的训练计划是否合适？该计划会为申请人的成功做出贡献吗？然后是环境机构承诺。他们对候选人发展成为科学家的承诺是什么？是否有足够的可用资源？你需要确定审查标准，这样当你撰写申请时，你就可以确保你在审核标准方面提出了审阅者想要的观点。您还想了解审阅流程。美国国立卫生研究院有一段关于美国国立卫生研究院同行评审过程的非常不错的视频，名为《美国国立卫生研究院同行评审揭晓》，你可以在YouTube上找到。它为美国国立卫生研究院同行评审会议提供了前排席位。许多其他资助机构的同行评审流程都建立在美国国立卫生研究院的基础上，因此，这是一段不错的视频，可以了解同行评审过程会是什么样子。您还想了解您的特定机构可能制定的内部政策和流程。有时，申请需要在赞助商截止日期之前在内部提交。还涉及额外的文书工作，因此请务必尽早了解这些政策和流程。第二，制定游戏计划并定期写作。撰写一笔引人注目的补助金需要时间、大量时间，这与繁忙的实验室日程和其他职责很难取得平衡。为了减轻压力，请通过创建包含目标或里程碑的详细时间表，将拨款要求划分为较小的任务。制定包含每日或每周目标的游戏计划也可以帮助您避免拖延。确保你定期、每天或每隔一天写一次，以建立有效的写作练习。这将提高你的工作效率并减少你的焦虑，因为写作将成为一种习惯。同样重要的是要让你的写作时间不可商量，这样其他义务或干扰就不会阻碍你的进步。提示3是找到你的研究利基市场。你需要对自己的领域有深刻的认识。你真的希望这种能力能够了解你的领域，并能够识别关键的知识缺口或需求。这些想法是该领域的瓶颈，如果你能够填补或满足需求，那么你可以大大推动你的领域向前发展。引人注目的项目通常还会结合两种看似无关的工作威胁，以挑战或改变当前的领域或临床实践模式。广泛熟悉更广泛的科学界也很重要。你想考虑如何扩展更广泛的科学界的概念和方法，以解决你所在领域的关键知识空白。保留您所在领域固有的问题或问题清单，并在阅读同行评审的论文、评论文章以及参加研讨会和会议后更新此列表。通过与您所在领域的同事、导师和关键研究人员的讨论，缩小列表范围，集中精力。当然，既然你正在申请奖学金或职业发展奖，请确保你提出的研究与资助机会公告的使命相关且恰当。提示4是使用您的特定目标文档作为路线图。具体目标文件是对您在项目期间的研究计划的单页描述。我们还有另一段视频，你可以在另一个视频中详细了解如何撰写引人注目的特定目标页面。但简而言之，您的特定目标页面必须简洁地回答以下问题。研究问题重要吗？引人入胜的项目通常可以解决知识库中的一个特殊空白，如果解决了这个空白，这个空白就会大大推动该领域的发展。总体目标是什么？总体目标必须定义提案的目的，并且无论如何检验假设都必须是可以实现的。具体要做什么？通过注意力、获取头条新闻、描述你的工作假设以及客观检验假设的方法来吸引审稿人的兴趣。预期的结果和影响是什么？描述审稿人在提案完成后在进入该领域方面可以期待什么。就像我在这里展示的装备一样，“特定目标”页面和这些问题的答案必须特别一致。否则，它不是一个非常有效的特定目标页面。同样，在下一个关于特定目标的视频中，你可以学习更多技巧来撰写一页的研究执行摘要。提示5是组建一支一流的球队。团队科学是一项共同努力，旨在应对科学挑战，它利用在不同领域接受过培训的人员的优势和专业知识。团队方法非常适合许多科学工作以及具有不同技能和知识的协调团队和研究人员，特别有助于复杂问题的研究。科学可以加速科学创新和转化。建立一流的团队对于奖学金和职业发展奖励尤其重要。该团队将包括你的导师、你的共同导师和你的顾问团队的成员。提示6是制定完整的研究计划。有关更多信息，请观看有关传达研究策略的视频。简而言之，研究计划是一种叙述，描述了一系列目标以及您将如何实现这些目标。需要回答的第一个问题是，是否有必要？这是为了了解你的项目的重要性和背景信息。其次，将如何实现这一具体目标？这包括将要使用的方法和分析。预期的结果是什么，可能出什么问题以及如何管理？有哪些替代方法？该项目需要多长时间？这个提案在项目时间内真的可行吗？那么接下来要做什么？这个项目的未来方向是什么？它将如何推动你的领域发展？提示7是停下来获取反馈。反馈对于制定一流的提案至关重要。你需要广大受众提供反馈，因为你的审稿人也可能来自不同的背景。积极向同事和导师征求反馈。即使是非科学家也可以就你的写作清晰度提供重要的建议。在征求反馈时，请告知您的审阅者您的具体需求。例如，您是否希望获得有关整体概念或可行性的更广泛反馈？或者你想要关于语法和拼写的建议？提示8讲述一个一致而有凝聚力的故事。应用程序通常还由许多文档或章节组成。因此，所有文档都必须讲述一致且有凝聚力的故事，这一点很重要。让我们再次以美国国立卫生研究院、NRSA为例。以下是该应用程序的主要文档列表。你可以在具体目标文件和个人简介的个人陈述中陈述你的长期目标，然后在职业发展文件中详细说明长期目标。这些文件中的每一个都必须讲述一致的故事。在撰写完整个申请后，至少要留出一到两周的时间来审查和仔细研究你讲的故事，以确保故事的一致性和凝聚力，这一点很重要。提示9是要遵循特定的要求并进行校对以确定错误和可读性。补助金有特定的格式和页面要求，必须严格遵守。在撰写和修改时，请将这些说明和审查标准放在手边。不符合要求的格式或其他要求的申请可能会在审核程序开始之前被行政部门拒绝。严格遵守所有要求和准则。校对几乎最终的文档是否存在错误和可读性。错误可能会让审阅者感到困惑。此外，如果文档中有许多拼写错误或语法错误，您的审阅者会质疑您是否有能力精确和准确地完成拟议的实验。提示10回收并重新提交。各种申请的资助机会公告通常有相似的要求，因此回收您的申请或将其重新提交给几个不同的资助机会相当容易。这会大大增加你的成功几率，特别是如果你能够通过处理审稿人对先前提交的评论来改进每次提交的申请。但是，一些赞助商将并发申请限制在不同的资助机会上，因此请仔细阅读说明。您几乎总是想重新提交。提交提案就像掷骰子一样。有些你输了，有些你赢了。但是在30％的几率下，继续尝试还不错。以下是撰写提案的10个技巧。我们今天讨论的这些技巧大致基于本文中的10个技巧，即撰写博士后奖学金的10条简单规则。但是提示数字5和6在今天的演讲中略有变化。