In this next module, I'm going to walk you through how I would edit a,whole essay. This is an essay from a student from a previous course.,Now I want you to pause the video, read through the essay a couple of times.,It's also provided as a text file if you'd rather read it there.,If you have time, try editing it on your own, and then restart the video, and I'll walk you through.,So this is the introduction section of a scientific manuscript about a new treatment for ovarian cancer.,The essay has several strengths. It has some nice language in it.,It has a nice logical flow, the right amount of information in each paragraph.,Good organization. It's also very clear what the goal of the study was.,And of course, that's what we want to convey in an introduction section.,I mainly gonna trim the essay a little bit here and there.,Especially that 3rd paragraph is a little bit dance, a little bit of alphabet soup, a little technical.,We're going to try to make that a little bit smoother.,So starting with a 1st paragraph.,Ovarian cancer is the deadliest gynological cancer with a high mortality rate that has remained unchanged in the past four decades.,That's actually pretty nice sentence. I mean, deadliest cancer, high mortality rate, that perhaps is a little bit of repetition,, but I actually think it reads fine, so I'm going to leave that as is.,Then we get the dismal prognosis of ovarian cancer, is in large part due to the acquired resistance to chemotherapy.,Now, I actually think that we don't need that entire sentence, because we're going to fold the idea of this acquired resistance to chemotherapy into the next sentence.,So I'm just going to delete that.,I don't think it's actually necessary that we have that there.,We can jump right into epithelial ovarian cancer, the most common type of ovarian cancer, is initially responsive to this platant therapy.,I like slightly better um, initially response to, initially response to sis flattin's therapy.,And then we get the recurrent disease, however, is often refractory to treatment and leads to mortality. I was slightly confused about what was meant by recurrent disease.,I think the idea here is that, and we don't know how many people recur, ,I think the idea here is that, uh, most people initially respond to this button therapy, but then almost everybody um acquire drug resistance.,So to make it a little more clear, I'm going to put this all in one sentence.,Initially response to sis Platin therapy, but most patients acquire resistance and eventually succumb to the disease.,I think that's the idea here, and then we can delete all of this new strategies to overcome drug resistant Our urgent drug resistance are urgently needed.,And so again, that conveys that idea that I that was in the 2nd sentence that I deleted.,So we don't really need that in order to reduce the mortality rate of ovarian cancer.,We already know we're talking about reducing mortality, you know, varying cancer, so I think we can just change this, yeah, or urgently needed to approve prognosis.,Since, like, cut the word prognosis, we can use it here.,I'd probably also just recommend the author,, they might want to mention that the other reason that ovarian cancer is so deadly is that it's almost always caught after it's already metasticized.,It might be worth just briefly mentioning.,In the 2nd paragraph, we get this new idea for a new drug for fighting drug resistance.,So the 1st sentence says, the discovery of small, interfering rnas by fire and mellow has provided new avenues of compat combating, resistant cancers.,I think that's a nice introduction to this paragraph all Note that there is an acronym here.,Small interfering RNAS. I'm going to let it go.,Small interfering RNA is a little bit long to write out, and I'm going to assume that the the journal, ,or the audience that the author has where they're submitting this manuscript, that SIRNA is a well recognized acronym, and I'm just going to let it go.,There's some other acronyms we might want a delete for from this intro, but I'll let that one stand.,We get to the next sentence. Silencing genes that are involved in drug resistance using RNA interference can allow for, you know, fighting drug resistance.,I think at the idea of silencing genes with already interference is just saying, using this small interfering RNAS.,So let's just say that a little bit more directly.,So how about small interfering RNACE may be able to silence the genes that are involved in cisplatin resistance, and we can get rid of all of that.,Um I we probably don't even need the in ovarian cancer.,Since I've already said this platinum resistance, given the context here, I think we can assume that the reader will now we're talking about in ovarian cancer.,So we can just do small interfering.,RNAS may be able to silence the genes that are involved in this platinum resistance.,Next we get successful treatment of ovarian cancer cells with multi drug resistant gene silencing Sirnas.,Well, that's just a repeat of what we just describe.,So I don't think we need any of that.,What's important here is that in order for this to work, we need these novel vehicles for carrying these drugs.,So I think we can just say, but this strategy, in order for this to work, ,this strategy requires the development of novel vehicles that can specifically ineffectively delivers this platten to sell nuclei and S-I rnas to sell cytoplasms respectively.,Now, I am not entirely sure why, um, I can kind of guess why the Sirnas need to be in the cytoplasm to block MRI.,I'm not entirely sure why the sis button is being targeted to the cell nuclei.,I feel like the reader here probably is just a little bit more information.,Maybe just give the reader a quick taste of why those things have to be targeted to those specific locations.,Then we get report. We report here the 1st use of nanoscale metal organic frameworks for the co delivery of Stislatin and pooled sirnas.,And guess what? We don't need this overcome drug resistance and ovarian cancer cells, because, again, that's implied.,They've developed this thing that closed delivers. And we already know the context here.,We don't need to repeat ourselves.,So this is a nice statement of the goals of their research.,Next, we jump into some details about these nm o fs.,I think we should probably not start the next paragraph with an acronym.,but let's just say metal organic framework, so that we're not just starting on an acronym, and that we can define that acronym.,There they are, an emerging class of self assembled, poorest materials, whose properties can be readily tuned by varying the molecular building blocks.,I think that's fine. When scaled down to the nano regimen, it might be a little faster to just say, um, we were talking about them in general, now we're talking about the nano sized one.,So what if we just said nano, nano scale size.,Nano sized, about nano sized, that's a word, nano sized, mmos.,And then we get served as efficient nanocurrirs for the delivery of imaging contrast agents and chemotheraputics.,I think this means that other people have already used these nanosized m ofs in this context before.,They've already been used clinically? I'm not quite sure, because serve as efficient nanocures is a little vague, but I'm going to just assume that this has actually been used.,So let's be very specific. Have been used as so there's already been a use of them have been used as nano carriers for the delivery of imaging contrast agents.,I think we can get the rid of the delivery of for it's kind of implied by carrier, right?,If it's a carrier, it's delivering something.,So four image contrasting agents and chemotheraputics.,So I think these have already been used in that way again, that then go to.,We surmised that, I prefer here to say we hypothesize that.,S Uh, you know, it's a scientific study, so I'm assuming that they kind of had a hypothesis.,We hypothesized that nmof represent a unique NATO carrier platform because of all these qualities.,So this sentence has kind of two parts to it.,The 1st says, hey, they might be useful because of these traits, and then the 2nd part says exactly how those traits are useful. It's actually a little bit repetitive, and I think we can just jump into how the traits are useful.,So try this. We hypothesized that M-O fs, or just that the large pores of the nmo f so that the large pores of NMO M-N-M-O-F uh, can be used, uh.,In fact, since they're hypothesizing this, and they're testing, and I think of the pro the better verb, cancer would be could be used, they could be used.,They're testing that they could be used to load chemotherrapeutics is a long habit,, if we just say drugs such as simplatin, as sis platin, while the metal ions in the nmof surfaces again, could be used.,They're testing that in this study, could be used to guide sina.,So this is what they're envisioning here, and then they're going to test it.,I'm going to say also could be used to simultaneously by sis I RNAS.,The reason I'm putting the simultaneous in there is that I'm going to delete the entire next sentence.,The simultaneous and efficient delivery of sis Platin and pool this iron aid to a variant cancer can allow for enhanced anti cancer efficacy by blocking drug resistance pathos.,Well, guess what? Ideas already been introduced in the 2nd paragraph.,We know exactly why we want to deliver these things that that was already established.,All of this is a repetition, and I just added the word simultaneously to the last paragraph to get that idea to last sentence to get that idea in.,Next we get in this work.,Sis Platin and S-I RNA were sequentially loaded into U-I-O-N-M-O,FS. Noticed that's a passive voice.,They were sequentially loaded. Let's turn it into,passive voice. I mean to active voice.,In this work, we sequentially loaded says platinum in S-I RNA.,Now we get into U-I-O-N-M-O-F. Okay?,I don't know what u IO stands for that.,That acronym has not yet been defined.,Uh? So just to know to the author, I'm going to bold that.,Also, I'd recommend to the author that we've got a little bit of alphabet soup going on here.,We've got S-I RNA, and there's too many accidents going on.,Maybe we could just write that one out, I might suggest to the other, or at least they need to define it. So in this work, we sequently loaded these two things on to the NMO s, and then the details of how that was done.,Maybe we could put that in paren'theses.,Maybe we it's like that sense it's getting a little longer.,Maybe that exact details are less important than could be considered extra Potentially, you might want to put that in paren'thesis.,Be careful, because we've got covalent attachment ian coordinating to metal sites those are not parallel.,To make those parallel, let's change a covalent attachment to covalently attaching, so then that would be parallel with coordinating.,So by covalently attaching and by coordinating to metal sites, that now is parallel, I now get to the next sentence.,And it says that these nmofs protect us irnas from nuclease degradation, enhance cellular uptake and promote its escape from endozo,nes to silence MDR genes, insist platinum resistant ovarian cancer cells.,Guess what? Again, we don't need to repeat that idea that's already been established.,The trust the reader that they can infer that this is a nice parallel sentence.,We get A-A, protect from, uh, enhance and promote.,So protect, enhance, promote. That's all nicely parallel.,The only question I had in reading this sentence is, I think that these are not experiments that have been done.,In other words, I don't think that the authors have done experiments to prove that these things are true.,I think that these might just be the author's speculation about how these things would work.,If that's the case, I think the sentence needs to be moved.,Um. It would make sense, more sense, to put this sentence right after we hypothesize that, ,before we get to the specific experiments done in this study, just so it's not confusing to the reader.,So I think these are things that the other suspect would be true where they speculate.,So maybe if we said, we suspect that u io, nmof will do all these things, will protect, enhance and promote,, I think the placement is better there, because that's now talking about all the things that they think will be true. And then we can jump to that in this work, what they actually tested in this study, and make it very clear the distinction between speculation in what was actually done.,So then we get that they sequentially loaded these things.,We get to the last sentence as a result.,Actually, as a result, isn't quite the right transition there.,Why don't we just say we found that?,Just say what was found. We found that co delivery of cis Platton and S-I-R, and it S-I-R-N-A with NMOFS led to an order of magnitude, enhancement in chemotherapy, putic effic efficacy.,I think we can streamline that a little bit, led to an enhancement.,How about if we just say increased in vitro chemotherapy efficacy, as indicated by tenfold, rather than an order of management?,I think I say by tenfold, it's a shorter way of saying by an order of magnitude.,So increased in mutual chemotherapy efficacy by tenfold, as indicated by selviability essay, DNA, latering and nex and B staining.,I feel like cell viability assay either needs to be cell viability assays, or by a cell cell viability assay, or maybe name the specific assay.,So I'll just make that one little last week.,But now it's reading very smoothly.

在下一个模块中，我将带你了解如何编辑整篇文章。这是一篇来自前一门课程的学生的文章。现在我想让你暂停视频，通读几遍这篇文章。如果您想在那里阅读，也可以将其作为文本文件提供。如果有时间，可以尝试自己编辑。然后重启视频，我会带你看一遍。因此，这是一篇关于卵巢癌新疗法的科学手稿的介绍部分。这篇文章有几个优点。里面有一些不错的语言。它具有良好的逻辑流程，每个段落中的信息量合适，组织良好。这项研究的目标也非常明确。当然，这就是我们想要在介绍部分中传达的内容。我主要要在这里和那里稍微修剪一下这篇文章。特别是，第三段有点密集，有点像字母汤，有点技术性。我们将努力让它变得更流畅一点。因此，从第一段开始，卵巢癌是最致命的妇科癌症，其死亡率很高，在过去的四十年中一直保持不变。这实际上是一句很不错的句子。我的意思是，最致命的癌症，高死亡率，也许有点重复。但我实际上认为它读起来不错，所以我将保持原样。然后我们得知，卵巢癌的预后令人沮丧，这在很大程度上是由于对化疗的获得性耐药性。现在，我实际上认为我们不需要整句话。因为我们要把这种获得的化疗耐药性的概念放到下一句话中。所以我只想把它删除。我认为我们实际上没有必要把它放在那里。我们可以直接进入上皮性卵巢癌，这是最常见的卵巢癌类型，最初对顺铂疗法有反应。我喜欢最初的回应稍微好一点。最初对顺铂治疗有反应。然后我们得了复发性疾病，但是这种疾病通常对治疗不利，并导致死亡。我终于对复发性疾病的含义感到困惑。我想这里的想法就是这样，而且我们不知道有多少人会复发。我认为这里的想法是，大多数人最初对顺铂疗法有反应。但随后几乎所有人都会产生耐药性。所以，为了更清楚一点，我将把所有这些都写在一句话中。最初，对这种顺铂疗法有反应。但是大多数患者会产生抵抗力，并最终死于这种疾病。我想这就是这里的主意。然后，我们可以删除所有这些。迫切需要新的战略来克服耐药性。再说一遍，这传达了我删除的第二句话中的想法。所以我们真的不需要那个。为了降低卵巢癌的死亡率，我们已经知道我们在谈论降低卵巢癌的死亡率。因此，我认为我们可以改变这种状况，这是改善预后所迫切需要的。既然我删掉了预后这个词，我们可以在这里使用它。我可能也只是向作者推荐，他们可能想提一下，卵巢癌如此致命的另一个原因是，它几乎总是在已经转移之后才被发现的。这里可能值得简单提一下。在第二段中，我们得到了一种对抗耐药性的新药的新想法。因此，第一句话说，FireandMello发现的小干扰性RNA为抗击耐药性癌症提供了新的途径。我认为这是对本段的一个很好的介绍。我要注意的是，这里有一个首字母缩略词，即小干扰RNA。我要放手了。小干扰RNA写出来有点长。我假设作者提交这份手稿的期刊或受众都认为siRNA是一个广为人知的首字母缩略词。而且我就放手了。我们可能还想从本简介中删除其他一些首字母缩略词。但我会让那个站起来的。我们进入下一句话，使用RNA干扰抑制与耐药性有关的基因可以对抗耐药性。我认为用RNA干扰沉默基因的想法只是说，使用小的干扰RNA。所以，让我们更直接地说一点。那么，怎么样，小小的干扰性RNA也许能够抑制那些参与顺铂耐药性的基因。而且我们可以摆脱所有这些。我们可能甚至不需要卵巢癌中的那个，因为我已经说过顺铂耐药性了。考虑到这里的背景，我想我们可以假设读者会知道我们在谈论卵巢癌。因此，我们可以做一些小的干扰RNA，也许能够抑制与顺铂耐药性有关的基因。接下来，我们成功使用沉默多药基因siRNA来治疗卵巢癌细胞。好吧，这只是我们刚才描述的内容的重复。所以我认为我们不需要任何这些。这里重要的是，为了让它发挥作用，我们需要这些新型的车辆来运送这些药物。所以我想你可以说，但是这种策略，为了使其发挥作用，这种策略需要开发新的载体，分别将顺铂输送到细胞核，将siRNA分别输送到细胞核，将siRNA输送到细胞质。现在，我不完全确定为什么。我能猜出为什么siRNA需要在细胞质中才能阻断mRNA。我不完全确定为什么顺铂会靶向细胞核。我觉得这里的读者可能只需要更多一点信息。也许只是让读者快速了解一下为什么这些东西必须针对这些特定地点。然后我们得到举报。我们在这里报告了首次使用纳米级金属有机框架来共同输送顺铂和集合siRNA。猜猜怎么着，我们不需要它来克服卵巢癌细胞的耐药性，因为这又是暗示的。他们开发了这种可以共同交付的东西。而且我们已经知道这里的背景。我们不需要重复自己的话。因此，这是对他们研究目标的很好的陈述。接下来，我们将深入探讨有关这些NMOF的一些细节。我认为我们可能不应该从首字母缩略词开始下一段。实际上，从技术上讲，作者尚未定义首字母缩略词MOF。但是，你的读者可能会猜出它是什么。但是，假设金属有机框架，这样我们就不会扭曲首字母缩略词。然后我们可以在那里定义这个首字母缩略词。它们是一类新兴的自组装多孔材料，其特性可以通过改变分子构件来轻松调整。我觉得没关系。当缩小到纳米方案时。现在我们谈论的是纳米大小的东西，现在我们谈论的是纳米大小的东西，可能要快一点。那么，如果我们只说纳米尺度大小，纳米大小呢？[LAUGH]如果是这个词的话，那纳米尺寸怎么样？纳米尺寸的MOF。现在我们得到了，可以作为高效的纳米载体，用于输送成像造影剂和化疗药物。我认为这意味着其他人以前已经在这种情况下使用过这些纳米大小的MOF。它们已经在临床上使用过。我不太确定它能否起到高效的作用。纳米载体有点大。但我只想假设它实际上已经被使用了。因此，让我们说得很具体。已经被用作，所以它们已经用过了。已被用作输送成像造影剂的纳米载体。我想我们可以摆脱for的交付。这是承运人暗示的，对吧？如果是承运人，它就是在运送东西。因此，对于成像造影剂和化疗药物。所以我认为这些已经以这种方式使用了。然后我们去猜测了。我更喜欢在这里说我们是这样假设的。这是一项科学研究，所以我假设他们有点假设。由于所有这些特性，我们假设nMOF代表着一种独特的纳米载体平台。所以这句话有两个部分。第一个说，嘿，由于这些特征，它们可能会有用。然后，第二部分确切地说明了这些特征的用处。其实有点重复。而且我认为我们可以直接谈谈这些特征是如何有用的。所以，试试这个，我们假设MOF或者仅此而已，NMOF的大孔隙，这样就可以使用nMOF的大孔隙了。实际上，既然他们在假设这个问题并且正在对其进行测试，我认为这里可以用更好的动词时态。它们可以被使用，他们正在测试，它们可以用来加载。化疗有点长。如果我们只说顺铂之类的药物怎么样？虽然可以再次使用MNOF表面的金属离子，但在研究中，我们正在测试它可以用来结合siRNA。因此，这就是他们在这里设想的，然后他们将对其进行测试。我要说的是，也可以用来同时绑定siRNA。我之所以同时放进去，是因为我要删除整个下一个句子。顺铂和合并的siRNA同时高效地输送到卵巢癌可以通过阻断耐药途径来增强抗癌功效。好吧，猜猜怎么着，这个想法已经在第二段中引入了。我们确切地知道为什么要交付这些东西。这已经确立了，所以所有这些都是重复的。我只是在最后一段中同时添加了这个词来表达这个想法，在最后一句话中同时添加了这个词来表达这个想法。接下来，在这项研究中，顺铂和siRNA被按顺序加载到UIOnMOF中。请注意，这是一种被动语态。它们是按顺序加载的。让我们把它修剪成主动语音。在这项工作中，我们依次加载了顺铂和siRNA。现在我们来谈谈UIOnMOF。好吧，我不知道UIO代表什么。该首字母缩写词尚未定义。所以只给作者一个笔记，我将用粗体表示。我还要向作者推荐我们这里有一点字母汤。我们有siRNA，首字母缩略词太多了。我可能会向作者建议，也许我们可以把那篇写出来。或者至少他们需要对其进行定义。因此，在这项工作中，我们按顺序将这两个东西加载到nMOF中。然后也许我们可以把它放在括号里，详细说明是如何完成的。也许那句话有点长。也许确切的细节不那么重要，可以认为是额外的。你可能想把它放在括号里。要小心，因为我们有共价附着力，并且与金属位点相协调。这些都不是平行的。为了使它们平行，让我们把共价依恋改为共价附着。因此，这与协调是并行的。因此，通过共价连接和协调金属部位。现在情况是平行的。我现在要说下一句话。它说，这些NMOF可以保护siRNA免受核酸酶降解，增强细胞吸收并促进其从内体中逸出。抑制耐顺铂的卵巢癌细胞中的MDR基因。猜猜怎么着，再说一遍，我们不需要重复这个想法。这已经确定了。因此，请相信读者，他们可以推断出来。这是一个不错的平行句子。我们得到保护、增强和提升。因此，保护、增强、提升，所有这些都非常平行。我在读这句话时唯一遇到的问题是，我认为这些不是已经完成的实验。换句话说，我认为作者没有做过实验来证明这些事情是真的。我认为这些可能是作者对这些东西将如何运作的猜测。如果是这样的话，我认为这句话需要改动。在我们假设，在我们开始这项研究中完成的具体实验之前，这样读者就不会感到困惑，所以把这句话放在正确位置会更有意义。因此，我认为作者怀疑这些都是真实的，他们猜测是真的。因此，也许如果我们说我们怀疑UIOnMOF会做所有这些事情，会保护、增强和促进。我认为那里的位置更好，因为那是在谈论他们认为会是真实的所有事情。然后我们可以跳到这项工作中，他们在研究中实际测试了什么，并非常清楚地说明猜测和实际所做的事情之间的区别。然后我们就知道他们按顺序加载了这些东西。结果，我们到了最后一句话。实际上，因此，那里的过渡并不完全正确。为什么我们不直接说我们发现了，就说发现了什么？我们发现，顺铂和siRNA与nMOFs共同给药可使化疗疗效提高一个数量级。我认为我们可以稍微简化一下。导致了增强，我们只是说体外、化疗疗效（如所示）提高了十倍，而不是一个数量级怎么样。我想我会说，十倍。这是一种简短的说法。因此，正如细胞活力测定、DNA阶梯和AnnexinV染色所表明的那样，体外化疗的疗效提高了十倍。我觉得细胞活力测定要么需要是细胞活力测定，要么是通过细胞活力测定，要么可以命名特定的测定。所以我再做最后一点调整。但是现在读起来非常流畅。再说一遍，这位作者做得非常好。