The Notes of UCAS “Scientific Writing in English”

Lecture—20150921

整理人：宋雪薇

学号：201528010515019

学院：生命科学院

阅读笔记说明：课件内容为*斜体*

课件翻译内容为（括号内加黑粗体）

括号内红色内容为（重点或 Torsten 口述翻译）

如有不准确大家见谅！

MODULE 1

（九月份的学习任务：模块 **1-**主要学习安排）

Getting started: Methods of Reducing the Pain -- Writing and Editing your first draft.

（准备开始：减少痛苦（写并编辑论文初稿）的方法）

Overview of todays lecture （本节课的内容概述）

1. Course matters (Groups etc.)（课程问题（分组等））

2. Module 1 – Getting Started (to be completed)（模块 **1-**准备开始（即将完成））

3. Summary（总结）

4. Tasks from last Friday（上周五的作业）

5. Tasks in-class（本节课上的作业）

6. Tasks for next Friday（本周五的作业）

一、课程问题

1、已经分好组的同学会以小组讨论的形式参与课上作业的讨论部分；未分组的同学可以暂时和旁边座位的同学讨论，课后在助教老师处登记统一分组。

2、有关网络、作业上传等技术问题联系范逸洲助教。其余课程问题和其余几位助教联系（和 Torsten 交流存在困难的情况下）

3、在教室无法容纳所有学生的情况下，希望旁听的同学把位置留给选修了本课的同学，毕竟选修了此课的学生最终会有成绩上传教务系统。

二、Module 1 – Getting Started (continued)（准备开始部分的剩余内容）（有重复）

此处课件用的是“3”，或许应该是“2”

1、TIP 5 Develop a reading habit（建议 **5** 培养一个阅读的习惯）

（此处取自上节课的建议 5-8，本模块的自主学习重点）

* *short-term: scientific articles in your field*（短期：本领域的科学文献）

* *long-term: fiction, novels, popular science magazines*（长期：小说和受欢迎的科学杂志）

2、*Data Analysis:*（数据分析）

* *almost 70% of you read 1-5 scientific articles per week*（几乎 **70%** 的同学每星期阅读 **1-5** 片科学文献）

* *more than half of students are reading English books*（超过一半的同学阅读英文书）

* *only ~10% participate in regular journal clubs*（只有 **10%**的经常参加杂志俱乐部）

* *~5% read regularly science-related journals in English*（大约 **5%** 的同学定期阅读与科学相关的英文期刊）

3、*TIP 6 Read like an editor*（像一个编辑一样阅读）

* *read articles with grammar focus*（阅读时注意语法）

Idea（方法）*:*

* *as non-native speakers, you do not have a 'native feeling' for the English language*（作为非母语者，你对英语没有一种“天性的感觉”）

* *to develop a better sense for grammatical structures essential forgood academic writing, start reading with a focus on use of articles, conjunctions, tenses ...*（培养一种语法结构的良好感觉对写好学术论文很重要，可以从注意文献中的链接、时态等方面开始阅读）

* read articles with grammar focus（带着语法读文献）

To be introduced in great detail in MODULE 2（将会在模块二详细介绍）

（此处用列举的方法提示我们阅读英文文献时需要关注的要点：冠词、动词、名词、概念）

① *Example:*

Highlight all articles (the /a/an) used in this abstract, and try to understand why a particular article form was used (definite versus indefinite). （重点标出所有文献摘要中使用 **the /a/an** 的位置，并且尝试着理解为什么这种特别的文章形式这样使用（定冠词 **the** 与不定冠词 **a/an**））

Degree of difficulty: HIGH（困难等级：高）

Mice carrying mutations in multiple genes are traditionally generated by sequential recombination in embryonic stem cells and/or time-consuming intercrossing of mice with a single mutation. The CRISPR/Cas system has been adapted as an efficient gene-targeting technology with the potential for multiplexed genome editing. We demonstrate that CRISPR/Cas-mediated gene editing allows the simultaneous disruption of five genes (Tet1, 2, 3, Sry, Uty--8 alleles) in mouse embryonic stem (ES) cells with high efficiency. Coinjection of Cas9 mRNA and single-guide RNAs (sgRNAs) targeting Tet1 and Tet2 into zygotes generated mice with biallelic mutations in both genes with an efficiency of 80%. Finally, we show that coinjection of Cas9 mRNA/sgRNAs with mutant oligos generated precise point mutations simultaneously in two target genes. Thus, the CRISPR/Cas system allows the one-step generation of animals carrying mutations in multiple genes, an approach that will greatly accelerate the in vivo study of functionally redundant genes and of epistatic gene interactions. ¶

② *Example:*

Highlight all Verbs used in this abstract, and add them to your verb dictionary. Then analyze the grammatical Tense used for each verb, and then discuss with your peers why a particular tense was used. In addition, check the subject or object each verbs is referring to.（重点标出此摘要中所使用的所有动词，并且把它们添加到你的“动词字典”中。然后分析每一个动词这样使用的语法时态

并和你的伙伴讨论这样使用的原因。另外，注意一下每一个动词的主语和宾语。）

Degree of difficulty: Medium（困难等级：中）

Mice carrying mutations in multiple genes are traditionally generated by sequential recombination in embryonic stem cells and/or time-consuming intercrossing of mice with a single mutation. The CRISPR/Cas system has been adapted as an efficient gene-targeting technology with the potential for multiplexed genome editing. We demonstrate that CRISPR/Cas-mediated gene editing allows the simultaneous disruption of five genes (Tet1, 2, 3, Sry, Uty--8 alleles) in mouse embryonic stem (ES) cells with high efficiency. Coinjection of Cas9 mRNA and single-guide RNAs (sgRNAs) targeting Tet1 and Tet2 into zygotes generated mice with biallelic mutations in both genes with an efficiency of 80%. Finally, we show that coinjection of Cas9 mRNA/sgRNAs with mutant oligos generated precise point mutations simultaneously in two target genes. Thus, the CRISPR/Cas system allows the one-step generation of animals carrying mutations in multiple genes, an approach that will greatly accelerate the in vivo study of functionally redundant genes and of epistatic gene interactions. ¶

（动词的准备使用可以使文章清晰精准，这是一篇论文非常重要的地方之一）

③ *Example:*

Highlight all strings of nouns in the text below, and calculate the average length of these strings.（重点标出下面段落中的所有名词，并计算这些名词词组的平均长度。）

Degree of difficulty: Medium（困难等级：中）

noun strings:
Mice carrying mutations in multiple genes are traditionally generated by sequential recombination in embryonic stem cells and/or time-consuming intercrossing of mice with a single mutation. The CRISPR/Cas system has been adapted as an efficient gene-targeting technology with the potential for multiplexed genome editing. We demonstrate that CRISPR/Cas-mediated gene editing allows the simultaneous disruption of five genes (Tet1, 2, 3, Sry, Uty--8 alleles) in mouse embryonic stem (ES) cells with high efficiency. Coinjection of Cas9 mRNA and single-guide RNAs (sgRNAs) targeting Tet1 and Tet2 into zygotes generated mice with biallelic mutations in both genes with an efficiency of 80%. Finally, we show that coinjection of Cas9 mRNA/sgRNAs with mutant oligos generated precise point mutations simultaneously in two target genes. Thus, the CRISPR/Cas system allows the one-step generation of animals carrying mutations in multiple genes, an approach that will greatly accelerate the in vivo study of functionally redundant genes and of epistatic gene interactions.

（了解英式的名次是如何组合的，做到地道表达）

④ *Example:*

Highlight words/concepts in subsequent sentences (1+2, 2+3, 3+4 etc.) that connect those two sentences with each other.（重点标记下面句子中的词语/概念，互相连接每两个句子。）（学习上下文的链接）

Degree of difficulty: Medium（困难等级：中）

Mice carrying mutations in multiple genes are traditionally generated by sequential recombination in embryonic stem cells and/or time-consuming intercrossing of mice with a single mutation. The CRISPR/Cas system has been adapted as an efficient gene-targeting technology with the potential for multiplexed genome editing. We demonstrate that CRISPR/Cas-mediated gene editing allows the simultaneous disruption of five genes (Tet1, 2, 3, Sry, Uty--8 alleles) in mouse embryonic stem (ES) cells with high efficiency. Coinjection of Cas9 mRNA and single-guide RNAs (sgRNAs) targeting Tet1 and Tet2 into zygotes generated mice with biallelic mutations in both genes with an efficiency of 80%. Finally, we show that coinjection of Cas9 mRNA/sgRNAs with mutant oligos generated precise point mutations simultaneously in two target genes. Thus, the CRISPR/Cas system allows the one-step generation of animals carrying mutations in multiple genes, an approach that will greatly accelerate the in vivo study of functionally redundant genes and of epistatic gene interactions. ¶

（练习这种表达可以做到清晰的告诉读者你所表达的是很么）

4、*TIP 7 Keep an everyday book*（建议 7 准备一个日记本）

* *collect new words, sentence structures and phrases*（搜集新单词、句子结构和段落）

* *do so in a section-specific way*（把每个部分如摘要、前沿、讨论等分开摘记）

* *use of dictionaries*（使用字典）

* *make sure you add reference for longer phrases*（确认你在长段落中引用的参考文献）*(plagiarism issue*（剽窃问题）*)*

- *offline notebook -> to be uploaded every fortnight*（课下笔记：每两个星期上传两次）（重点注意：此处已经不是建议，是作业!!!!!）（具体如何上传随后会解释）

5、*TIP 8 Writing is different to Editing*（写作不同于编辑）

Standard procedure used by most young writers:（很多年轻的写作者经常运用标准程序）

* *writing down a few sentences*（*写句子*）

* *thinking about them*（*思考句子*）

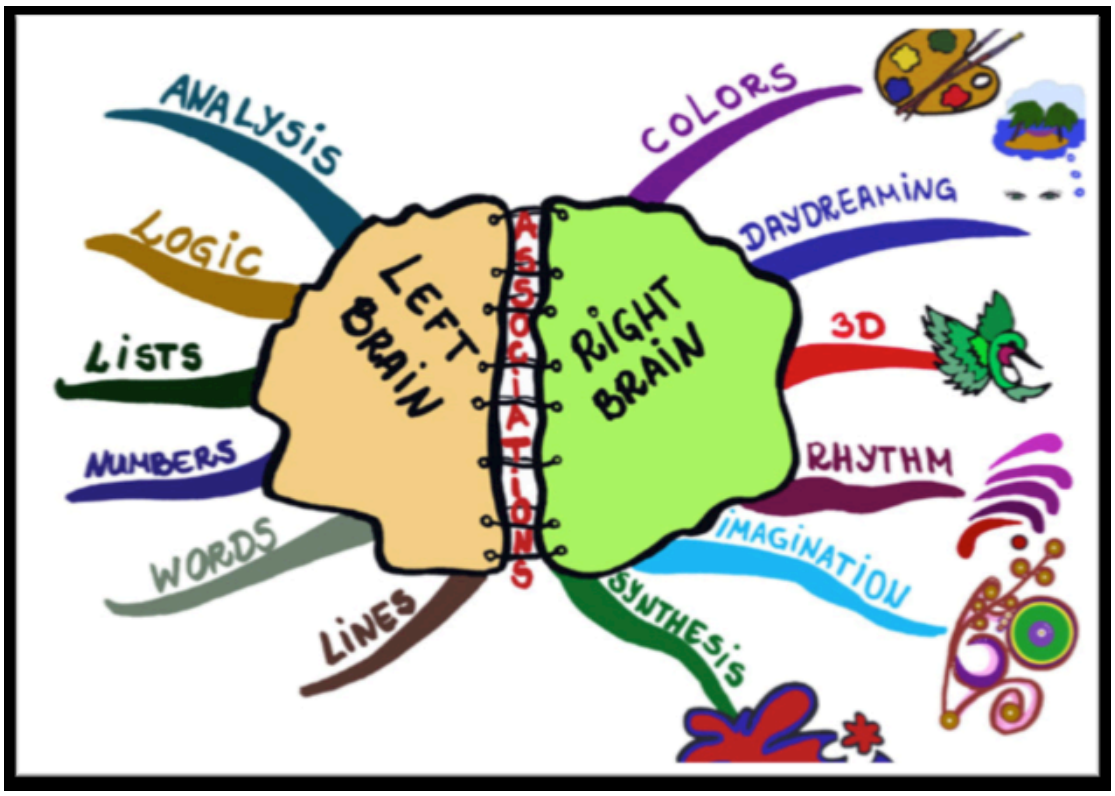
* *finding errors in spelling or grammar*（*寻找拼写和语法错误*）

* *correcting of mistakes*（*改正错误*）

* *writing a few more lines*（*多写几行*）

* *repeating this cycle until exhausted (about 30 min later!)*（不断的重复这个过程知道你累了（至少 **30** 分钟才可以类~））

PROBLEM: Train of thought constantly interrupted!（问题：思考训练总是被打断）



-> *Writing and Editing require different brain functions!* （写作和编辑由不同的大脑分工）

* *your very first draft does NOT have to be perfect!*（你的每一份初稿不一定要完美）

* *maintaining train of thought most important*（持续的思考训练非常重要）

* *focus on - connection between your individual results*（注意你的实验结果之间的联系）

- connection between results and literature（注意结果和文章之间的联系）

* *when writing: do nothing but writing*（写作的时间：除了写作什么也不干）

* *forget about logical order, grammar, spelling*（忘记逻辑顺序、

语法和拼写在你仅仅是写作的时候）

** switch of your mobile, get offline, de-activate the wifi!*（关掉你的手机和电脑还有 **wifi**）

** your brain cannot focus on writing if you do anything else at the same time*（如果你在写作的时间做其他的事情，你的大脑不能集中注意力与写作）

-> writing very energy-consuming process, do not waste it on any other activities !（写作是个消耗能量的过程，不要浪费于其他活动）

** Editing requires knowledge of grammar and syntax**（编辑需要语法知识和排版能力）

** Editing requires adequate vocabulary*（编辑需要足够的词汇）

** Editing requires sense of logical order*（编辑需要一种逻辑能力）

-> all happening in the left hemisphere of your brain（这些都由你的右脑决定）

-> none of these have anything to do with your experimental results, yes?!（所有的这些编辑都和你的实验结果相关么？）

（写作时尽可能以英式思维思考文章，而不是先想中文再翻译成英文；全面的了解实验结果有利于论文的编辑）

syntax... arrangement of words and phrases（此处解释 **syntax**，区别于 **grammer**）

（第二部分重复上节课内容为主）

三、*Summary*（总结）

* *Start with an internet fact finding mission*（从网上找到任务）

* *Practise, practise, practise!*（练习，练习，再练习！）

* *Avoid multitasking while Writing!*（避免在写作时做其他事）

* *Keep a record of new vocabulary and phrases*（保持记录新单词和短语的习惯）

四、**Tasks from last Friday**（上周五的作业）

（上周作业的反馈结果）

Task 1: Starting Point of your Writing

YOUR ANSWERS

They will never won（*win*）*a beauty context(contest), but naked moles (mole)rats may hold the(a) lesson or two for humans. 2 (Two)studies in 2013 found glues(clues) to why these rodents can live 30 years, cancer-free. One secret may be the ribosomes(ribosome) that excels at producing error-free proteins;* misformed proteins can clog up the body's systems and accelerated(accelerate) aging. Another could be a supersized version of a complex sugar which(that) seems to protect against cancer. Naked mole rats do not brake(break) this compound down as fast as other animals, though(so) it builds up in the spaces between cells and may keep a(the) cells from clumping together and

formatting(forming) tumors.

(共 13 处错误，蓝色字体标注为错误，括号内为正确答案)

Work in progress!**（介于正确率只有 10%，Torsten 希望学完这门课程大家的正确率有 90%）**

TASK 3: Article Details

-> *To be discussed after completion of Part 2*（完成第二部分后讨论）

（此处省略上节课作业的二维码）

Please Note: ALL TASKS will have deadlines（所有的作业都有最后期限!!）

➔ *provided to you together with the code*（会提供密码获取课件和笔记）

（大家选取的十篇文献尽量为以英语为母语的作者文献为主，有错误的情况会尽可能小；如果认为有非英语母语者文献写的很好可以选用。）

Q5 : Count the number of words/items as indicated:

Number of Authors	Words in Title	Words in Abstract	Words in Introduction	Words in Results Section	Words in Discussion Section	Number of References
7	9	190	703	95	311	50
7	10	281	961	701	2195	62
1	6	18	269	360	0	2
2	12	164	456	959	959	13
7	19	134	214	78	412	36
5	15	127	458	2038	1024	52
4	15	341	1109	1437	697	57
22	8	223	342	203	4	11
4	18	175	543	479	1327	20
11	5	138	379	2791	261	42

受访人数：368 1 / 37 下一页

（此处数据反馈信息为：标题一般 10-20 字；摘要一般 200 字左右；讨论部分不会没有，四个字无法阐述……此部分可以让大家了解文献各部分字数的平均分布）

+ *information about the journal*（期刊信息）

+ *information about the general field*（一般领域的信息）

+ *title of the article*（文章标题）

-> *our first data bank of home-made "Instructions to Authors"*