

# 2024 “第七届中国大学生 5 分钟科研英语演讲”

## 2 号通知

为响应国家培养具有国际竞争力的新工科、新医科、新农科、新文科的创新人才，继在 2018 年至 2023 年成功举办了六届“中国大学生 5 分钟科研英语演讲”后（获奖视频见附录），“第七届中国大学生 5 分钟科研英语演讲”将在 2024 年 3 月至 2024 年 8 月继续举办。本次大赛由中国学术英语教学研究会举办。

本赛事是一项全公益的学术活动，一如既往，即参加报名和证书颁发均不收任何费用。赛事目的：促进我国高校本科生和研究生的科研能力，提高他们用英语从事科研项目和学术交流的能力，帮助我国未来的科研工作者有效地向国际同行介绍自己的学术思想和科研成果；提高他们的国际传播能力，同时推动我国高校大学英语从通用英语范式向以项目为导向的专门用途英语范式转移。

### 一、参赛要求

（一）对象为我国（包括港澳台）高校在读本科生和研究生。要求以 1-5 人组成团队参赛，鼓励团队成员跨专业、跨年级和跨学校。

（二）参赛作品是基于一个与自己专业相关或跨专业的课题项目，其中包括 1) 团队成员已经完成或已发表的课题，2) 团队成员正在做或打算开展的研究。研究方法一般采用实证研究方法收集数据，不接受介绍性或文献综述性类作品。

（三）演讲作品是基于一篇用英语撰写的研究报告或研究计划。研究报告包括标题、摘要、引言、方法、结果、讨论和结论、致谢和参考文献等基本部分（见科研报告样板）。长度不少于 2000 英语单词。研究计划包括标题，摘要，研究目的，研究意义，文献回顾，研究问题，拟采用方法，预期结果，参考文献。长度在 1500 词左右。

（四）演讲要求团队推选一名成员用易于理解的英语、在 5 分钟内向没有专业背景的听众介绍自己的研究（见标准）。演讲要求录制成 5 分钟视频（误差不得超过 1 分钟）。

—视频为 MP4 格式，大小在 100M 以内。

—视频应在固定的位置上进行连续录制，无剪辑，无中断。视频画面可进行缩放。

—演讲辅助的 PPT 不超过 7 张，第一页是标题和团队成员姓名（不暴露学校名），最后一页是参考文献。其他 5 张分别为：研究背景，研究问题，研究方法，研究结果和讨论。PPT 字体大小，图片设计从后排观众角度考虑。

—演讲人需在视频中面对观众，保证 95%以上时间是在与观众交流，而不是背对观众解释 PPT。

—演讲中可演示模型，但不包括诗歌朗诵、说唱乐、歌曲等语言形式

表 1. 演讲评分标准

内容	要求
1. 演讲内容和理解性 (占 50%)	能给出明确的研究目的或研究问题，能提供相关背景和研究意义
	能清晰地 1) 介绍研究方法，2) 描述研究结果或发现，3) 报告结论和价值
	能将复杂的专业内容让非专业听众听懂，如用个人经历引出研究问题
2. 演讲技能 (占 25%)	能恰当地使用身势语、目光交流等非言语交际方式
	能展示演讲人的激情，紧紧抓住听众的注意力

	能合理设计 PPT，字体和图表清晰简洁，使演讲更易懂生动
3.演讲语言 (占 25%)	语言适合非专业的听众，表达是否流畅
	词汇和语法基本准确，发音可以理解

**表 2. 研究报告或研究计划评分标准**

<b>评分标准</b>	<ul style="list-style-type: none"> <li>—<b>标题</b>要具体清晰，能够从中猜到论文的主题和解决主要问题。</li> <li>—<b>摘要</b>必须告诉研究的问题和目的，使用的研究方法，主要发现和结论等基本要素。</li> <li>—<b>引言介绍</b>要对研究问题的重要性和必要性有提及，对解决的问题有一定的文献回顾，了解研究现状，在此基础上提出研究问题或假设。</li> <li>—<b>方法</b>部分必须具体详细，方法做到可复制性可检验性，如要具体交代研究的对象，材料和步骤等。</li> <li>—<b>结果</b>部分要围绕研究问题，呈现研究的发现和结果，恰当使用图表等说明。</li> <li>—<b>讨论和结论</b>包括以下内容：解释自己发现和结果，有可能的话把自己的结果与前人类似研究结果进行比较；阐明发现的学术和现实意义，讨论研究不足和以后可以继续研究的方面。</li> <li>—<b>参考文献</b>要列出研究报告中所使用的文献如论文、著作和文件等。</li> </ul>
<b>评分分工</b>	专业教师和语言教师除关心以上标准，专业教师更多注重内容，如报告的创新度，价值性，以及研究方法的恰当，研究结果的可靠等；语言教师要关注写作层面，如行文逻辑连贯，语言表达准确（如语体正式，句法词汇正确），学术规范符合（如理论，定义，前人研究介绍必须用引用方法，给出出处）和话语表达贴切（如根据学科特点是否用委婉语或强调语等）。

五)参赛选手需遵守学术规范，不得出现以下学术不端行为：抄袭、剽窃、侵吞他人学术成果、伪造或者篡改数据和文献，抄袭他人论文等文献，捏造事实和在未参加研究的团队成果上署名。对可疑论文要求查重相似度检查。

(二)资料包括：

1. 大赛作品报名表（表 2）；2. 科研诚信保证书（表 2）。3. **研究报告和五分钟演讲视频**（在初赛结束后，复赛开始前传平台）。材料务必使用同一文件名，以便识别。

## 二、报名条件

(一)所有要参加大赛的团队于 5 月 10 日前，通过学术英语教学研究会（以下简称“学会”）的大赛入口（<http://sentbase.com/cn5mrp/>）报名。进入链接后，请选择自己学校赛区（如西北赛区、北京工业大学赛区），如自己学校没有独立赛区，请选择邻近赛区。传上报名表，并确保信息准确无误，后续证书制作以此表名信息为准。填写时注意：姓名（汉语+拼音）；团队成员排序；作品标题和学校名（汉语+英语）。

**表 3. 报名表**

作品标题 (Title)			
团队姓名（列出所有成员，排序）		本科生 /研究 生	

学校		学院	
E-mail 地址		联系电话	
专业指导教师		英语指导教师	
英语摘要 (Abstract)			
<b>科研诚信保证</b> 我们遵守学术规范，作品无抄袭、剽窃、侵吞他人学术成果；无伪造或者篡改数据和文献；无抄袭他人论文等文献，无捏造事实和在未参加研究的团队成果上署名 <b>组长签名</b> _____			

注：组长可以不是演讲人，但必须是团队负责人。

### 三、赛事流程

分初赛、复赛、半决赛和决赛，组织评委对演讲和研究报告综评。

1. 初赛由赛区自己组织专家（一般两个语言教师，两个专业教师）进行审评，主要是演讲表现，结合研究报告或研究计划，给出分数。

初赛形式可以网上也可落地。通过评审，选出参加复赛的选手（进入复赛的名额一般是初赛作品的 50%-60%左右，985 和 211 等重点高校可以取 70%左右）。初赛时间：5 月 10 日开始，6 月 10 日结束。初赛结束后各赛区把进入复赛的演讲作品和研究报告上传大赛平台。

2. 复赛一般采用现场演讲落地赛（一些进入复赛的学生由于不是同地区，可以通过插播线上视频作品）。一个赛区复赛的作品最低不少于 20 个，建议较少作品的赛区，可以联合几个类似较少作品的赛区举办复赛。

复赛的评委一般三个语言教师和三个专业教师组成，有提问环节。根据进入复赛的作品数量，可以向决赛推荐一等奖（5%），二等奖（20%）和三等奖（30%）作品（不分本科生组和研究生组）。双一流院校的一等奖可达到 7%，二等奖 30%，三等奖 40%。参加复赛但未出线的均为优胜奖。复赛时间：6 月 10 日开始，7 月 10 日结束。

**复赛必须在 7 月 10 日前结束。复赛结束，各赛区提交复赛报告，内容包括：**

- 1) 复赛时间和形式，
- 2) 初赛作品总数和复赛作品总数及其比例，
- 3) 复赛评审专家（姓名和专业），
- 4) 复赛各奖项，标明一等奖、二等奖、三等奖和优胜奖，以及占复赛的比例，

3. 半决赛主要是对复赛上报的一等奖进行审核。组织专家分头评审，主要是作品的研究报告或研究计划，参考演讲视频，综合分数后，前 30 名进入决赛。

4. 总决赛仍然分两个。一组为理科、农科和文科，另一组为医科类，承办单位待定。

决赛采用方法选择下面一种：1) 落地赛和视频评审相结合的方法；2) 落地赛。最终评选出全国特等奖。决赛时间 7 月 10 日-20 日。

凡获得优胜奖以上的作品都获得由学会盖章的证书。作品在线上保存传播，作为学生佐证材料之用。同时颁布指导教师证书和赛区负责人的组织奖证书。

2) 往年获奖视频参见：

**第一届视频（2018）**

<http://www.sentbase.com/cn5mrp1/?content-app-content&contentid=613>

**第二届视频（2019）**

<http://sentbase.com/cn5mrp/?content-app-content&contentid=623>

**第三届视频（2020）**

<http://sentbase.com/cn5mrp/?content-app-content&contentid=632>

**第四届视频（2021）**

<http://sentbase.com/cn5mrp/?content-app-content&contentid=637>

**第五届视频（2022）**

<http://sentbase.com/cn5mrp/?content-app-content&contentid=638>

**第六届视频（2023）**

<http://sentbase.com/cn5mrp/?content-app-content&contentid=640>

#### 四、联系方式

（一）赛区申请

独立赛区申请资格：保证有参加初赛作品 30 个，不足的可以联合几个学校申请赛区。申请新赛区，可电话咨询：13661673344(发短信加微信)

（二）总赛区邮箱（待定）

（三）赛区邮箱（待添加或删除）

1. 西北赛区，西北工业大学，联系人：崔孝彬，[cuixb15842@nwpu.edu.cn](mailto:cuixb15842@nwpu.edu.cn)
2. 安徽赛区，合肥工业大学：联系人：田健，[kevintj@hfut.edu.cn](mailto:kevintj@hfut.edu.cn)
3. 山东科技大学赛区，联系人：张卫东，[skd991845@sdust.edu.cn](mailto:skd991845@sdust.edu.cn)
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组委会

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附录 1: 研究报告样本

**Influence of Genetically Modified Soya on the Birth-Weight and Survival of Rat Pups**

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**ABSTRACT**

Investigation of the influence of GM soya on the birthrate and survival of the offspring of Wistar rats were performed. A group of female rats were fed GM soya flour before mating and pregnancy. The control group of females were fed traditional soya and the third group of females, the positive control group, received feed without any soya. The weight and the mortality rate of the newborn pups were analyzed. The study showed that there was a very high rate of pup mortality (55.6%) in the GM soya group in comparison with the control group and the positive control group (9% and 6.8% respectively). Moreover, death in the first group continued during lactation, and the weights of the survivors are lower those from the other two groups. It was revealed in these experiments, that GM soya could have a negative influence on the offsprings of Wistar rats

**INTRODUCTION**

It is well accepted by scientists worldwide that four main sources of the hazards of genetically modified organisms (GMO): 1) those due to the new genes, and gene products introduced; 2) unintended effects inherent to the technology; 3) interactions between foreign genes and host genes; and 4) those arising from the spread of the introduced genes by ordinary cross-pollination as well as by horizontal gene transfer (World Scientists' Statement 2000).

To understand what effect they can have on us and on our animals and whether their risks may outweigh the benefits it is vitally important to study the influence of these GM plants in different organisms for several generations. The hazard of GMO was shown for animals in extensive investigations (Traavik 1995; Ho and Tappeser 1997; Pusztai 1999 and 2001; Kuznetsov et al. 2004 and others). Earlier it was shown that consumption of GM food by animals led to the negative changes in their organisms. Experiments, conducted by Pusztai showed that potatoes modified by the insertion of the gene of the snowdrop lectin (an insecticidal proteins), stunted the growth of rats, significantly affected some of their vital organs, including the kidneys, thymus, gastrocnemius muscle and others (1998) and damaged

their intestines and their immune system (Ewen and Pusztai 1999). Similar effect of GM potatoes on rats was obtained at the Institute of Nutrition in Russia (Ermakova 2005). In another research of Shubbert et al. (1998), foreign DNA, orally ingested by pregnant mice, was discovered in blood (leukocytes), spleen, liver, heart, brain, testes and other organs of foetuses and newborn animals. They considered that maternally ingested foreign DNA could be potential mutagens for the developing fetus. However, Brake and Evenson (2004) analyzing the testis in mice as a sensitive biomonitor of potential toxic, didn't find adverse effects of transgenic soybean diet on fetal development. From the literature review, there seems a lack of investigations on the influence of GM crops on mammals, especially on their reproductive function. Therefore, the objective of the study we undertake is to see the effect of the most commonly used GM crop on the birth rate, mortality and weight gain of rat pups, whose mother were fed diets supplemented with Roundup-Ready soya, a kind of GM food.

## **METHODS**

### *Animals:*

Wistar rats were used as the subjects in the experiment. The animals were brought up to sexual maturity on laboratory rat feed. When their weight reached about 180 - 200 g, the female rats were divided into 3 groups, housed in groups(3 rat/cage), and kept under normal laboratory conditions. The feeding scheme was as follows. Females in every cage daily received dry pellets from a special container placed on the top of their cage. Those rats receiving soya flour supplement, were given the soya flour in a small container placed inside their cage (20g x 40 ml water) for three rats and, so 5 - 7g flour for each rat every day.

### *Experiment:*

One group of female rats of 180 - 200 g weight was allocated to the experimental group, and received 5-7 soy a flour/rat/day prepared from Roundup-Ready soya, added to the rat feed for two weeks. Another group females(3) were allocated to the control group, but their diet was supplemented with the same amount of soya flour, prepared from the traditional soya in which only traces (0.08+ 0.04%) of the GM construct was present, most likely resulting from cross-contamination. We also introduced a positive control group (in two cages:3x3), which had not been exposed to soya flour. Therefore females only got the standard laboratory feed without any supplementation, although it is acknowledged that the energy and protein content of this diet was less than in the other two groups.

After two weeks on the diets all groups of 3 females were mated with two healthy males of the same age, which had never been exposed to soya flour supplements. In order to avoid infection of females, the sperm count and quality had not been determined. We carried on feeding the respective diets to all females during mating and pregnancy. Upon delivery, all females were transferred to individual cages, and the amount of soya supplement was increased by an additional g for every pup born. Lab feed and water was available for all animals during the experimental period. When the rat pups opened their eyes and could feed themselves (from 13-14 days of age), the daily dose of soya supplement was increased till 2 - 3g for every pup, although all rats had free approach to the soya. All rats ate their soya portions well. After the experiment was finished the organs of some pups were taken out and weighed. The level of mortality was analyzed by the one-way ANOVA, using the Newman-Keuls test for share distribution. The pup's weight and its distribution were checked by Mann-Whitney test and Chi-square in StatSoft Statistica v6.0 Multilingua (Russia).

## RESULTS

By the end of the experiment, from the 15 females included in the experiment, 11 gave birth and produced a total of 132 rat pups. The 4 rats who became pregnant from 6 females on the positive control diet gave birth to 44 pups (an average of 11 pups/female), while the four females, from the six on GM soya flour supplemented groups gave birth to 45 (11.3 pups/female), and 3 from traditional soya group-33 pups (11 pups/mother).

Supplementation of the diet of the females with GM soya led to the death of 25 pups, out of the 45 born by the end of the third week of lactation, while during the same period on the traditional soya supplemented diets only 3 pups died from 33. The mortality in the positive control group was also 3, but from the larger number of pups born, as seen in Table 1. High pup mortality was generally characteristic for females fed the GM soya flour (Table 2). Among the pups from the females fed the positive control diet, 2 pups died during the first week, and 1 during the second week after delivery. All pups from females fed traditional soya flour died during the first week after birth. However, pups from females fed the GM soya flour supplemented diet kept dying during lactation period as it is evident from Table 3.

**Table 1 Mortality of rat pups by the end of the 3rd week of lactation; compared to the GM soya flour supplemented group**

Groups	Number of pups born	Number of dead pups	Dead pups/total born (%)
Positive control	44	3 (p=0,0001 18)*	6.8 %
Trad. Soya	33	3 (p=0,0001 03)*	9 %
GM soya	45	25	55.6 %

**Table 2 Number rat pups died from the litter of individual females on the GM soya flour supplemented diet**

Females	Number of newborn rats	Number of pups died	Number of dead pups/born(%)
Female No. 1	11	7	64 %
Female No. 2	8	4	50 %
Female No. 3	13	6	46 %
Female No. 4	13	8	62 %

**Table 3 The number of dead pups (number and as %) from the treatment groups at different times after birth**

Groups	1st week	2nd week	3rd week
Positive control	4.5 % (2)	2.3 % (1)	0
Trad. Soya	9 % (3)	0	0
GM soya	31,1 % (14)	13,4% (6)	11,1% (5)

In two weeks after their birth the weight of pups from the GM soya supplemented group was less ( $23.95\text{g} \pm 1.5\text{g}$ ) than that of the pups of the positive control group ( $30.03\text{g} \pm 1.1\text{g}$ ;  $p < 0.005$ ), or from the traditional soya flour supplemented group ( $27.1\text{g} \pm 0.9\text{g}$ ;  $p < 0.1$ ). Since the number of surviving pups was so different, the weigh distribution of the pups was compared in Table 4. From the data it is evident that 36% of the pups from the GM soya group weighed less than 20 g, in comparison with 6% in the positive control group, and with 6.7% found in the traditional soya



supplemented diet group (Table 4). The study of pup's organs mass showed that the organs of small pups from GM group were tiny in comparison with the same of other groups except the brain mass (Table 5). This fact indicated that the pups from the GM group were the same age as others, but changes occurred with the development of internal organs. Slight negative effect was found in the group which received the traditional soya, but this effect was not significant. No mortality of females and survived young pups eating the GM soya flour supplemented diet was observed.

**Table 4 Weigh distribution of rat pups by 2 weeks of age on different diets in comparison with GM-group**

Group:	50-40 g	40-30 g	30-20 g	20-10 g
Positive control	12.5 %	37.5 %	44 %	6 % * (p<0.01)
Trad. soya	0 %	20 %	73.3 %	6.7 % * (p<0.05)
GM soya	0 %	23 %	41 %	36 %

**Table 5 Examples of absolute values of organ mass in pups in three weeks after their birth.**

NN	Body	Liver	Lungs	Heart	Kidneys	Spleen	Testes	Brain
N26; control	69	3.80	1.20	0.37	0.44/0.44	0.52	0.34/0.34	1.67
N27; control	72	4.63	1.55	0.38	0.52/0.42	0.81	0.3/0.3	1.6
N28; GM soya	35	1.83	0.6	0.19	0.28/0.28	0.21	0.13/0.14	1.60
N29; GM soya	30	1.68	0.5	0.20	0.19/0.20	0.19	0.14/0.18	1.54
N30; trad. soya	62	4.28	0.95	0.36	0.38/0.38	0.24	0.22/0.26	1.76

## DISCUSSION

The reproductive behaviour of female rats fed on standard laboratory feed supplemented with soya flour prepared from either genetically modified soya or traditional soya was studied to see the effect of the diet on pregnancy, lactation and the growth of the rat pups. Upon delivery, very unexpectedly a very high rate of pup mortality (55.6%) was observed in the group of females whose diet was supplemented with the GM soya flour in comparison with the pups of both the positive control (6.8 %) and the traditional soya flour supplemented (9%) groups. Also, in this group the pups continued to die over the period of lactation, which occurred only in the GM soya fed group. At the same time, the weights of the surviving rat pups were also lower. It is the more surprising, since the pups were smaller, about half, therefore more milk should have been available for the individual pups. They should have a better chance to grow optimally, unless the amount, and/or the quality of the milk were not affected by consuming the GM soya flour.

Our data allow us to speculate and presume that the negative effect of GM soya on the newborn pups could be explained by two possible factors. Firstly, it can be the result of transformation, and insertion of the foreign genes, which could penetrate into the sexual/stem cells, or/and into cells of the fetus, as it was observed by Schubbert et al. (1998). Secondly, the negative effect could be caused by the accumulation of Roundup residues in GM soya. However, no mortality was observed with female rats, nor with the young pups survived, although they also began to eat the GM soya. It is supposed that the effect could be caused by the first factor. (总词数 2005)

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### 附录 2.演讲稿样本 (这是转录自国外 3 分钟科研演讲, 5 分钟大约 550-600 词)

#### Dengue Detective

Have you ever been bitten by mosquito? Naturally, they suck. And they bite and they make us itch. And more than that they transmit deadly diseases across the globe including dengue.

In a year, three hundred and nineteen million people fall victim to dengue. That's like sixteen times the population of Australia today. And seventy percent of the death caused by the virus are due

to one reason: a delay in detection.

I was a victim of dengue myself. Horrible experience. I had a high fever for three days. And the doctors, like the mosquito, took my blood again and again. And it was not until the fourth day that they can finally confirm that I had an infection and stop by treatment. By then I was already too weak even to drink on my own, and I had to put on drips for a whole week. I felt helpless and afraid but the worst part was having to witness other victims in my ward succumbed to dengue just because they were not treated in time. I was lucky to survive. And I felt that nobody should die from something as trivial as a mosquito bite, right? And so I dedicated my next few years of my life to find a solution. What I 've developed is a dengue sensor which is able to detect a virus more accurately and in need of much shorter time.

Meet my dengue detective. It holds three basic components: light, anti-bodies and taped optical fiber which has not been used before. What we need of patient is one tiny drop of blood. Now let me tell you how it works. Envision an underwater glass tunnel. You know you once find a Aquarium exhibitions you walk through, the sharks and fish around you. Now visualize this taped optical fiber as that glass tunnel emerges in a patient's blood sample. And on the surface of this fiber tunnel, I mobilize anti-bodies to capture the virus. Next I transmit light to travel through this fiber tunnel and indicate the presence and quantity of the virus. And dengue is detected and quantified.

This dengue detective holds great promise. Let me tell you why. First, it is highly sensitive and reliable. Second, it is affordable for all clinics to use. Lastly and most importantly, it is able to reduce the detection time from 4 days to just 15 minutes, which gives dengue victims a greater chance to survive. This technology is a huge step forward in the future of dengue diagnosis.

Mosquito will still suck, but this sensor would detect virus in time.

