

动物实验伦理审查表 编号 (No): FJMU IACUC 2018-088

The Table of Animal Experimental Ethical Inspection

申请人填写 (Written by Applicant)

申请人基本信息 (Applicant Information)	项目负责人(Study Director): 黄龙生		联系电话 (Telephone): 13705929261	
	专业 (Major): 针灸推拿学		传真 (Fax): /	
	岗位证书编号 (Number of License): /		邮箱(Email): 83194221@qq.com	
	申请人 (Applicant): 冯叶彬		联系电话 (Telephone): 15980299920	
	申请部门 (Department): 福建省妇幼保健院			
项目基本信息 (Study Information)	项目名称 (Study Name): 基于 NRG1/ErbB4 信号紊乱在“靳三针”治疗孤独症中作用机制的研究			
	项目编号 (Study Number): 81804173			
	项目来源 (Source of Study): 2018 年国家青年科学基金项目			
	实验目的 (Aim of Study): 针刺孤独症大鼠模型以及目标基因胚胎电转模型, 分析分子、细胞及整体动物行为发生的变化, 为针刺治疗孤独症的作用机制提供分子生物学基础			
供试品信息 (Test Article Information)	供试品名称 (Test Article Name): 丙戊酸钠			
	供试品编号 (Test Article Number): 无			
	供试品类别 (Test Article Classification): 药品			
	是否属于有毒(害)物质 (Whether it is toxic or harmful substances): 是            否 <input checked="" type="checkbox"/> 说明:			
实验人员基本信息 (Operator Information)	姓名 (Name)	专业 (Major)	工作内容 (Content)	实验动物从业人员上岗证号 (Number of License)
	左伟敏	肿瘤学	腹腔注射, 大脑皮层取材观察	(闽实动会字)第 2016-126 号
	黄龙生	针灸推拿学	实验设计, 大脑皮层取材观察	/
	王静蓉	儿科学	动物行为观察, 实验数据记录	/

拟进动物情况 (Animal Information)	动物来源(Source of Animal):上海斯莱克实验动物有限责任公司			
	生产许可证号(Number of Production license): SCXK(沪)2017-0005			
	品种品系 (Species or Strain):	Wistar 大鼠	等级(Grade):	SPF 级
	数量(Quantity):	60 只: 雌雄 1:1	规格(Specification):	8 周 龄 , 200-250g
	进驻日期 (Entering Date):	2018.11	结束日期 (Ending Date):	2019.6
实验动物饲养情况 (Housing Information)	◇实验动物饲养设施(Breeding Facilities) <input type="checkbox"/> 使用许可证号: <u>SYXK(闽)2016-0006</u> <input type="checkbox"/> 设施地址: <u>福建医科大学上街校区实验动物中心三层</u> 其他(请注明): _____			
	◇饲养环境 (Breeding environment) 普通环境 <input type="checkbox"/> 屏障环境 <input checked="" type="checkbox"/>			
	◇饲养人员 (Breeder)  饲养人员负责 <input checked="" type="checkbox"/> 实验人员负责 <input type="checkbox"/> 其他人员负责(请注明): _____			
	◇ 其他特殊要求 (请详细描述, 包括饲料、饮水、温度、湿度、光照周期、笼具、垫料等要求) Special care (Briefly describe any special food , water, temperature, humidity, light cycle , caging type and bedding requirements.):  无特殊要求			

实验内容概述  
(Outline of Study):

◇ 请简述实验方法、给药途径、观察指标等 (Briefly describe the study Methods, Route of Administration, Observation indexes, etc.): 健康繁殖期 Wistar 雌鼠 10 只, 体重 250-260g 实验组与模型组于孕鼠 E12.5 天时腹腔注射丙戊酸钠 (孕鼠按 600mg/kg 量腹腔注射, 按 250mg/ml 溶解在生理盐水), 对照组于等量生理盐水腹腔注射, 产下仔鼠取 40 只, 分为实验组、模型组、对照组、空白组, 每组 10 只, 实验干预于第 8 天开始, 每天一次, 连续 10 天, 比较外观、体重, 睁眼时间, 水迷宫实验等行为学表现, 动物安乐死后 (断颈), 取大脑皮层, 双侧海马, 1 次, 进行指标检测。

◇ 是否会造成动物不适或疼痛以及相应处理方法 (Does the study can induce the animal discomfort or pain, if yes, please describe the treatment):

是 (请说明)  否

处理方法: 熟练掌握腹腔注射操作技能和实验动物保定方法, 动作轻柔, 以减轻实验动物不适及疼痛

◇ 实验结束后动物处理方法描述 (Describe the animal processing method when the end of the study):

继续饲养

理由/用途: \_\_\_\_\_

实施安乐死

简述处理方法 (包括麻醉品名称、途径、剂量等, 如为非常规方法请说明理由):

颈椎脱臼法于冰上断颈处死小鼠, 动作迅速, 不引起疼痛和兴奋, 能快速导致意识丧失和死亡。

尸体、组织、或体液的最终处理

动物尸体: 动物中心统一处理

其他 (请注明) \_\_\_\_\_

◇ 若实验含外科程序, 请简述麻醉方法、剂量、给药方式与术后照顾 (If the study need to surgery, please describe anesthesia method, dosage, route of administration and postoperative care): 无  有

☆ 手术名称/方法: \_\_\_\_\_

☆ 麻醉情况说明:

麻醉前处理: \_\_\_\_\_

麻醉给药: 药品名称: \_\_\_\_\_

剂 量: \_\_\_\_\_

给药途径: \_\_\_\_\_

☆ 术后处理:

实施安死术

继续饲养留待观察 (请填写下面内容)

其他 (请注明) \_\_\_\_\_

☆ 术后护理:

镇 痛 药: 药品名称: \_\_\_\_\_

剂 量: \_\_\_\_\_

给药途径: \_\_\_\_\_

给药频率: \_\_\_\_\_

抗感染药物: 药品名称: \_\_\_\_\_

剂 量: \_\_\_\_\_

给药途径: \_\_\_\_\_

给药频率: \_\_\_\_\_

其他 (请注明): \_\_\_\_\_

<b>伦理委员会成员 回避要求 (Avoidance Requirement)</b>	◇ 伦理委员会回避成员名单 (Name of Avoidance member) :
<b>申请人声明 (Applicant Statement)</b>	◇ 声明(Statement):  我保证以上所填内容真实可靠, 并将严格遵守上述实验方案, 保证研究过程中严格遵守相关标准操作规程、遵守国家及地方相关法律法规, 随时接受伦理委员会的监督与检查。  签 名(Signature): <u>黄坤志</u>  2018年10月10日
<b>补充资料 (Addition Document)</b>	
<b>审查结果 (Results of Inspection)</b>	◇ 实验动物中心主任意见(Comments Director of Laboratory Animal Center):  <input checked="checked" type="checkbox"/> 同意(Agree) <input type="checkbox"/> 不同意(Disagree)  签 名(Signature): <u>郭伟斌</u>  2018年10月31日

实验动物福利伦理委员会填写 (Written by Laboratory Animal Welfare & Ethics Committee):

<p><b>审查内容</b> (Contents of Inspection)</p>	<p>◇ 是否符合如下要求 (Does the study accord with following Requirements) :</p> <p>◆ 该项目是否必须用动物进行实验, 能否采用动物替代方法, 即使用低等动物替代高等动物, 用非脊椎动物替代脊椎动物、用组织细胞替代整体动物、用分子生物学、人工合成材料、计算机模拟等非动物实验方法替代动物实验: 【符合 <input checked="" type="checkbox"/> 不符合 <input type="checkbox"/>】</p> <p>◆ 该项目所用动物的品种品系、质量等级、规格是否合适, 能否通过改良设计方案或用高质量的动物来减少所用动物的数量: 【符合 <input checked="" type="checkbox"/> 不符合 <input type="checkbox"/>】</p> <p>◆ 该项目是否符合动物福利原则。实验动物运输及饲养过程中是否能够享有最基本权利, 享有免受饥渴、生活舒适自由, 享有良好饲养和标准化的生活环境的要求: 【符合 <input checked="" type="checkbox"/> 不符合 <input type="checkbox"/>】</p> <p>◆ 该项目实验操作中是否符合实验动物伦理原则, 包括合理的实验终点, 麻醉方案、减少实验动物应激、痛苦和伤害的措施以及实验结束后动物处理和动物安死术方案等: 【符合 <input checked="" type="checkbox"/> 不符合 <input type="checkbox"/>】</p> <p>◆ 该项目是否充分考虑从业人员的安全要求: 【符合 <input checked="" type="checkbox"/> 不符合 <input type="checkbox"/>】</p> <p>◆ 该项目实验方法和目的是否符合人类的道德伦理标准、国家和国际相关标准。 【符合 <input checked="" type="checkbox"/> 不符合 <input type="checkbox"/>】</p>
<p><b>审查形式说明</b> (Information of Inspection form)</p>	<p>常规审查 <input type="checkbox"/></p> <p>会议审查 <input checked="" type="checkbox"/></p> <p>参会人员签名(Signature): _____</p> <p>_____</p> <p>_____</p> <p>_____</p>

◇ 实验动物福利伦理委员会意见(Comments Director Animal Welfare & Ethics Committee)

同意

不同意

说明理由: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

审查结果  
(Results of  
Inspection)

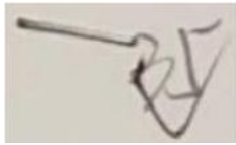
签名/盖章(Signature/Stamp):



2018年10月31日

**填表说明:**

1. 申请人需在动物实验开始前提交本表。
2. 申请人需仔细、认真、完整填写上述内容。
3. 本审查表一式二份单面打印填写, 审批完成后, 实验动物伦理委员会以及动物实验伦理申请人各留一份。
4. 电子版发送实验动物伦理邮箱: [sydwll@mail.fjmu.edu.cn](mailto:sydwll@mail.fjmu.edu.cn)。



Form number (No): FMUIACUc

2018-088

### The Table of Animal Experimental Ethical Inspection

Applicant (Written by Applicant)

Basic information of the applicant (Applicant Information)	Project Leader (Study Director): Huang Longsheng		Contact telephone number (Telephone): 13705929261	
	Major (Major): Acupuncture and massage science		Fax (Fax): 1	
	Post Certificate Number (Number of License): /		Email (Email): 83194221@qq.com	
	Applicant (Applicant): Feng Yebin		Contact telephone number (Telephone): 15980299920	
	Application department (Department): Fujian Provincial Maternal and Child Health Care Hospital			
Basic information of the project (Study Information)	Project Name (Study Name): Based on the mechanism of NRG1 / ErbB 4 signaling disorder in the treatment of autism			
	Project Number (Study Number): 81804173			
	Project source (Source of Study): 2018 National Science Foundation for Youth 2018			
	Experimental objective (Aim of Study): Rat model of acupuncture autism and electrotransfer model of target gene embryo, to analyze the changes of molecular, cellular and overall animal behavior, and to provide a molecular biological basis for the mechanism of acupuncture treatment of autism			
For test product information (Test Article Information)	Name of the test article (Test Article Name): sodium valproate			
	Test article number (Test Article Number): None			
	Test category (Test Article Classification): drug product			
	Whether it is a toxic (harmful) substance (Whether it is toxic or harmful substances): yesdeny <input checked="" type="checkbox"/> explain:			
Basic information of the experimenter (Operator Information)	Name (Name)	Profession (Major)	Work content (Content)	Certificate number of laboratory animal practitioners (Number of License)
	Zuo Weimin	oncology	Intraperitoneal injection, cerebral cortex material observation	(Min Hui) No. 2016-126

Huang Longsheng	Acupuncture and massage	Experimental design, and the cerebral cortex was used for observation	/
Wang Jingrong	pediatrics	Animal behavior was observed, and the experimental data were recorded	/



Proposed feeding animal condition (Animal Information)	Animal source (Source of Animal): Shanghai Slake Laboratory Animal Co., Ltd			
	Production License No. (Number of Production license): SCXK (Shanghai) 2017-0005			
	Varieties of strains (Species or Strain):	Wistar Rat	Grade (Grade):	SPF level
	Quantity (Quantity):	60 mice: male and female 1:1	Specifications (Specification):	At 8 weeks of age, 200 - 250g
	Date of entry (Entering Date):	2018.11	deadline (Ending Date):	2019.6
Housing status of experimental animals (Housing Information)	<input checked="" type="checkbox"/> Laboratory Animal Breeding Facility (Breeding Facilities) <input type="checkbox"/> Use License No.: SYXK (Min) 2016-0006 <input type="checkbox"/> Address: Floor 3, Experimental Animal Center, Shangcheng Campus, Fujian Medical University Other (please note):			
	<input checked="" type="checkbox"/> Feeding Environment (Breeding environment) Common environment mouth, barrier environment			
	<input checked="" type="checkbox"/> Feeders (Breeder)  The feeding personnel is responsible for the mouth, and the laboratory personnel is responsible for the mouth Other personnel are responsible for this task (please indicate):			

◇ Other special requirements (please specify, including feed, drinking water, temperature, humidity, light cycle, cage, bedding, etc.)  
Special care (Briefly describe any special food, water, temperature, humidity light cycle, caging type and bedding requirements.):

No special requirements

◇ Please briefly describe the experimental methods, route of administration, observation indicators, etc. (Briefly describe the study Methods, Route of Administration, Observation indexes, et c.): In healthy breeding period Wistar, 10 female mice weighing 250-260g and the model group received sodium valproate at E12.5 days (pregnant mice received intraperitoneal injection at 600mg / kg, Dissolve in normal saline at 250 mg/ml), the control group was injected in an equal amount of normal saline, and 40 mice were taken, Divided into experimental group, model group, control group, blank group, each group of 10, the experimental intervention on day 8, one, times, 10 consecutive days, compare appearance, weight, eye time, water maze experiment behavioral performance, animals after euthanasia (neck), the cerebral cortex, bilateral hippocampus, once, indicators.

◇ Whether causing animal discomfort or pain and corresponding procedures (Does the study can induce the animal discomfort or pain, if yes, please describe the treatment):

Yes (please specify)  Don't mouth

Treatment methods: Master the operation skills of intraperitoneal injection and experimental animals, gentle action, to reduce the discomfort and pain of experimental animals

Overview of the  
experiment  
content  
(Outline  
of  
Study):

◇ Description of animal treatment methods after the experiment (Describe the animal processing method when the end of the study):

Reason /  
use of  
continued  
feeding:  
Implement the euthanasia of

Summarize the treatment method (including anesthetic name, route, dose, etc., if unconventional method, please explain the reason):

Cervical dislocation kills mice on ice, moves quickly, does not cause pain and excitement, and can quickly lead to loss of consciousness and death.


Final handling of carcass,  
tissue, or body fluids:  
unified handling by the  
animal center  Others  
(please note)

◇ If the experiment includes surgical procedures, please briefly describe the anesthesia method, dose, administration method and postoperative care (If the study need to surgery, please describe an esthesia method, dosage, route of administration and postoperative care): no  Have a mouth

☆ Procedure name / method:

☆ Anesthesia  
description:  
Pre-  
anesthesia  
treatment:  
Anesthetic administration: Drug Name:  
Dose: Route of administration:

Post-operative management of ☆:  
Stay alive for observation (please fill in the content below)  
Other  
(please  
indicate) ☆  
Postoperative  
care:  
Analgesic drug: Drug name: \_dosage:  
Route of administration: Frequency of administration:  
Anti-infective drug: Drug name:a pharmaceutical or other chemical  
preparationmeasure:  
Route of administration: Frequency of administration:  
Other (please note):

Ethics committee members Avoid requirements (Avoidance Requirement)	◇ List of Ethics Committee (Name of Avoidance member):
Applicant Statement (Applicant Statement)	◇ statement (Statement):  I guarantee that the above contents are true and reliable, and will strictly abide by the above experimental scheme, ensure that the relevant standard operating procedures and relevant national and local laws and regulations during the research process, and be subject to the supervision and inspection of the ethics committee at any time.  signFirst Name (Signature):   10_ - -10, 2018
Supplementary Information (Addition Document)	

Review the  
results  
(Results  
of  
Inspection)

◇ Opinion of the Director (Comments Director of Laboratory Animal  
Center): agree (Agree)  disagree (Disagree)

signFirst Name (Signature)



2018 年 10 月 31 日

Completed by the Experimental Animal Welfare Ethics Committee (Written by Laboratory Animal Welfare & Ethics Committee):

<p>Review the content (Contents of Inspection)</p>	<p>◇ Meet the following requirements (Docs the study accord with following Requirements):</p> <p>Whether the project must be tested with animals, and whether animal alternatives can be used, namely with lower animals</p> <p>Replace higher animals, replace vertebrates with non-vertebrates, replace whole animals with tissue cells, replace animal experiments with molecular biology, synthetic materials, computer simulation and other non-animal experimental methods;</p> <p>[<input checked="" type="checkbox"/> inconsistency]</p> <p>◆ Whether the varieties, quality grades and specifications of the animals used in this project are appropriate, and whether the quantity of the animals used can be reduced by improving the design scheme or using high-quality animals;</p> <p>[<input checked="" type="checkbox"/> inconsistency]</p> <p>◆ Whether the project conforms to the animal welfare principles. Whether the transportation and feeding in the process of experimental animals can enjoy the most basic rights, enjoy the freedom from hunger and thirst, live comfortable and free, enjoy a good feeding and standardized living environment requirements;</p> <p>[accord with <input type="checkbox"/> conformity <input type="checkbox"/>]</p> <p>◆ Whether the experimental operation of this project complies with the ethical principles of experimental animals, including reasonable experimental endpoint, anesthesia protocol, measures to reduce the stress, pain and injury of experimental animals, and animal treatment and animal killing prescription after the end of the experiment</p> <p>Case, etc.;</p> <p>[accord with <input checked="" type="checkbox"/> conformity <input type="checkbox"/>]</p> <p>◆ Whether the project fully considers the safety requirements of the employees;</p> <p>[<input checked="" type="checkbox"/> not <input type="checkbox"/>]</p> <p>◆ Whether the experimental methods and objectives of this project meet human moral and ethical standards and relevant national and international standards. [<input checked="" type="checkbox"/>]</p>
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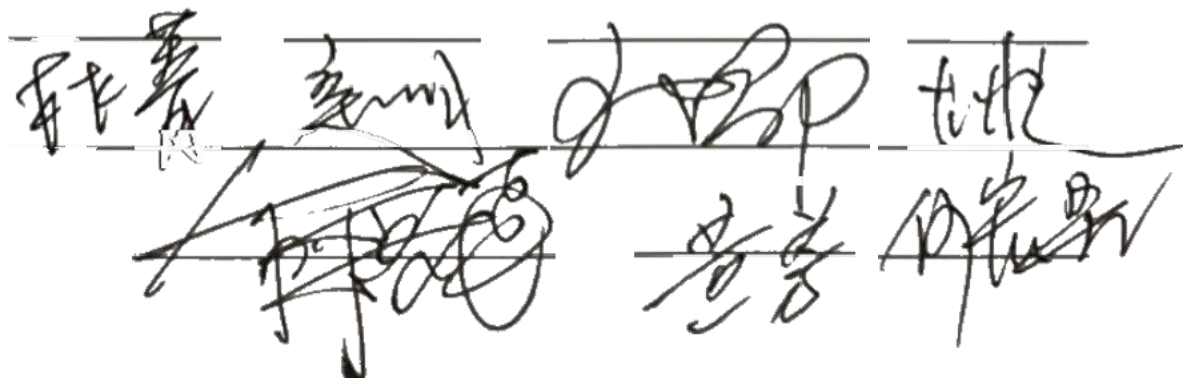
not

Review form description  
(Information of Inspection form)

Regular review

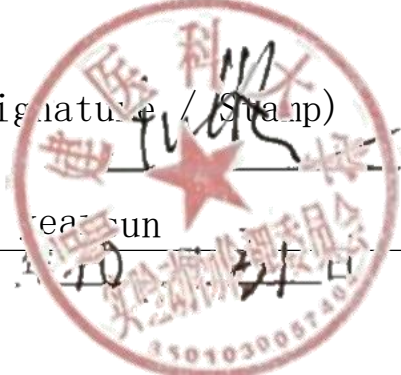
Meeting review

Signature of the participants (Signature):



The image shows a grid of lines with handwritten signatures in Chinese characters. There are two rows of signatures. The first row contains four distinct signatures. The second row contains a large, complex signature on the left and two smaller signatures on the right.



Review the results (Results of Inspection)	<p>◇ Opinion of the Laboratory Animal Welfare Ethics Committee (Comments Director Animal Welfare &amp; Ethics Committee)</p> <p>Conse nt disag ree</p> <p>adduce:</p> <p>Signature / seal (Signature / Stamp)</p> <p>2018</p> 
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**Fill in the form:**

1. Applicants should submit this form before the start of the animal experiments.
2. The applicant should fill in the above contents carefully, carefully and completely.
3. This review form shall be printed in duplicate. After the approval, the Experimental Animal Ethics Committee and the applicant for animal experiment ethics shall leave one copy each.

4. Send the electronic version to the experimental animal ethics email address:  
sydwillamail fjmu.edu.cn .